Why Is It: and Why It Is.

THE difference between the knowledge, and consequently *the enjoyment* of a true admirer of flowers, and the senseless being whose only pleasure consists in dusting a *prima donna* with them on the stage, is so great as to be almost unfathomable. The botanist, too, comes under the anathema of the gardener for his mode of admiration. We lately asked a distinguished author on botanical subjects, "Why it was that students of his science rarely had a good garden or a greenhouse." "Because," was the reply, "they can rarely afford it!" But this is not the only cause. *They* enjoy the flowers as nature placed her impress upon them; "double" and "improved" varieties are to them monsters. Sometimes, however, one meets with a scientific man who admires beauty in these new developments; why should we not love *all* the beauties that nature can display, and why not with added interest when our own art has brought them into being?

To marry flowers to music is but an acknowledgment that beauties of two different kinds are allied; poetry, song, and music, united to Flora, appears to be a natural union. We do sometimes, however, wish that the flingers of bouquets could know *a little* of the structure of a flower, and appreciate the glory which they cast away. But on any terms we are willing that flowers should be *loved*. The lady who gathers a bouquet and arranges it in her house, has gone a step as far as her neighbor who passes four hours daily in acquiring a mechanical mastery over the keys of a piano without her heart being touched by *melody*. And the lover of the garden has a fairer chance that her enjoyment will be of a permanent nature, than the strummer of the harpsichord whose period of play so often closes with a housekeeper's duties. Is it not melancholy to reflect on the hours, the *years*, wasted in mechanical trifling over musical instruments, in those numerous cases where there is no real taste for music? View the former "musician," in her age. What is the *use* of all the conquest she has made over the keys; where is the useful information she might have acquired by the study of a science during those long hours devoted to learning and saying the nonentities of the music stores; where are the moral teachings she has missed? Where the books she might have read, and the world of information, of men and women, or the history of her own race, she might have acquired? Perhaps she unites herself to an officer whose duties call him to the tropics; visit her there, and she tells you *only* of the heat; or if near the sea, that her piano is spoiled by the damp—and she cannot sing "without an instrument." Curiously enough this is a common complaint; the human voice, the most delightful, the most heart-touching, is much neglected for the less agreeable arts of mechanical device. Had she been taught to love and understand nature, her enjoyment would be ceaseless; her curiosity would be constantly awakened. It was our good fortune once to meet a married

couple in a tropical latitude, *banished* as they called it ; their occupations were merely such as they conceived would pass the *time*, that "enemy of the ignorant, that bane of idleness." The gentleman was all kindness, the lady anxious to be civil ; the first had not yet "*taken the trouble*," as he expressed it, to get a cocoa-nut, and taste that noble product of nature, its milk ; the lady hated the smell of bananas, and did not allow them on the premises, which were furnished very simply as if for temporary occupancy ; she had not observed a single flower of the lavish bounty around her. She had, however, her piano : but it was "out of tune," and there was "nobody to put it in order !" So her life was a listless series of mere endurances. Had she sooner cultivated a love for nature, and added the love of a garden to her sole accomplishment, life and her temporary banishment would have been full of enjoyment. If her pencil had been used with judgment, she might have brought home portraits of hundreds of friends that would have afforded her a life-long source of charming reminiscences. We have seen her since her return ; she has her piano tuned, and rejoices, we believe very sincerely, that she has not now to fight the mosquitoes, her sole tender recollection of the beautiful coffee plantations, and the gardens of the fruit of the Hesperides ! Poor lady ! We dare to say that the purchase of a bouquet to throw on the stage for the newest favorite of the hour, and of the contents of which bouquet she knows only the Rose, gives to her untutored mind the *appearance* of a pleasure that exists only in name.

Why is it that so many grow up in *total* ignorance of the lavish bounties by which we are all surrounded ? Why does education stop at the music stool, and the polka ? It is because the world is but half educated ; because our schools are "taught" by half-informed people ; books are to be learned by rote—books made by people, themselves ignorant of much they write about. The best treatises are often unknown to the masses who issue from our schools ; interested parties have made and sold others ; the bookseller worms himself into the Board of Instruction, and he of course vends his own inferior article ; teachers are made to order, and of a very second-rate order some of them are. The world wags onward, the children's minds are unopened. Take any town in this great Union and see how many of its so-called "educated" inhabitants can converse with you on Astronomy or Botany, two sciences whose objects are always above and around them ; they know less of these, perhaps, than they do of the "Negro Melodists." Sorrowful is it to see any mind wrapped around with the blanket of self-satisfied ignorance ; but so is it, and so will it be, until education—not the mere "learning" of our school-books, is diffused by people trained to know something more than is now disseminated. Every new comer upon this delightful, this beautiful earth, *has to learn ;* the blank sheet of the mind, on which it is so easy to write good or evil, must be constantly burnished or it becomes rusty ; no burnishing will take place till curiosity is awakened. We regret to add that attempts to awaken it are too frequently the exception, not the rule or practice.

Inquiries are beginning to be instituted, to ascertain why the education that is to fit the young for useful occupations in country homes is utterly ignored. The question is one of immense importance, and we would have the subject fully canvassed.

TO KALON GRAPE.*

For a description of the To Kalon, we resort to Mr. Charles Downing's revised edition:

"Raised by Dr. Spofford, of Lansingburgh, N. Y. This fine grape has been but little disseminated in consequence of the general supposition that it was very much like, if not identical with, the Catawba, from which it is entirely distinct, in wood, foliage, and every characteristic of the fruit. It is a vigorous grower, foliage very large, abundant, and much less rough than Catawba or Isabella; and the alæ of the leaves overlap each other different from any other with which we are acquainted.

Bunches large and shouldered; berries varying in form from oval to oblate; very dark in color and profusely covered with bloom. Its fruit, when ripe, is very sweet, buttery, and luscious, without foxiness in its aroma, or any toughness or acidity in its pulp. It is perfectly hardy, and with good treatment in deep, rich, pervious soil, it is an early and abundant bearer; with indifferent treatment it is a poor bearer. It ripens a little earlier than the Isabella."

We are *almost* afraid to vouch for the coloring of this grape drawn from a specimen, if we remember rightly, that had undergone a journey of some length.

ON GARDENIA RADICANS AND FLORIDA.

BY A FLOWER GARDENER.

Among the most delicate and fragrant early flowers these Gardenias may be classed; for they are now forced forward in abundance to meet the demands of our markets and gardens, and cultivated to a great extent for cut flowers. Both the above species strike freely from cuttings placed in silver sand, under bell-glasses, if favored with a gentle bottom heat; their after-management is equally simple, if, after sufficient root is made, they are potted off and transferred to a common hotbed, plunged to the rim, and kept growing till they actually flower; the principal thing to bear in mind in their cultivation is, that they delight in moist peat, and in nothing so much as a common hotbed. A few pots in a cucumber frame will do well, insomuch that they who grow for supplying Covent Garden find it the most profitable as well as the most effective; the heat afforded is just what the plants require, keeps off red spider, thrip, mealy bug, and other entomological pests, to which they are so liable in the stove. When the plants are large, they should be transferred to a moist stove or orchid-house, or they are in danger of receiving a check they do not get over without considerable care and trouble, and frequently not at all. If cuttings were taken off at the time when last year's shoots had made all their growth, they will root and flower before they are more than three inches high, and even in thumb-pots, although for specimens this would not be allowable. Few plants surpass them in delightful fragrance, and they yield an abundance of lovely blossoms at a time when they are very serviceable.—*London Florist.*

* See Frontispiece.

THE ORCHARD HOUSE, OR THE CULTIVATION OF FRUIT TREES IN POTS UNDER GLASS.

BY THOMAS RIVERS, OF THE NURSERIES, SAWBRIDGEWORTH, HERTS.

Continued from page 272.

Plums.—I do not think that the good qualities of this fruit are as yet half appreciated. It is in season from July to November; it is excellent for preserves and for compôtes. And then how delicious are many of its varieties as dessert fruit! For the orchard house it is also well adapted; the early varieties ripen very early; the late kinds may be kept in muslin bags all through November; they shrivel in the dry climate, and are perfectly delicious. I have had some of Coe's Golden Drop in muslin bags on the trees, partaking of the flavor of those called "French plums," but richer and more agreeable.

Plums for potting may be grafted on the sloe (Prunus spinosa), but they are equally prolific when grafted on the plum stock: if they have been removed the year previously to potting, they will be full of bloom-buds, and will bear a good crop the first season; if they can be procured already established in pots, the crop will be better and the fruit larger. The same compost and the same treatment recommended for apricots will do for plums; the same potting, pinching, and pruning, so as to make the trees nicely shaped, compact, and dwarf, is all that is necessary.

In selecting varieties some care is required, so as to have plums all through the summer and autumn. The very early and very late plums here in the South of England seem to ripen in the orchard house without any loss of flavor; but the mid-season plums, such as the Mamelonnée, Green Gage, De Montfort, and, I may add, the Jefferson, are, I think, improved in flavor by being ripened in the open air. For this purpose the trees should be lifted, so as to break off their young roots, a week previously, and then removed to some warm and sheltered situation. Their flavor is, I think, improved by this treatment; and their removal will give more room to the peaches and nectarines. In wet and moist climates, where the Green Gage ripens with difficulty, they must remain under glass all the summer.

And now to our selection. For the first, take the Early Favorite and Early Prolific,—two most excellent sorts, which ripen about the middle of July, nearly as soon as the Jaune Hâtive, a very early, but very inferior, plum; next in succession comes the Saint Etienne; then the De Montfort; the Denniston's Superb, and the Mamelonnée—early green-gage-like plums; the Green Gage; the Jefferson,—rich and delicious it is; Purple Gage; Reine Claude de Bavay; Coe's Golden Drop; Ickworth Impératrice; St. Martin's Quetsche; Coe's Late Red, and the Late Black Orleans;—all these are excellent, and ripen nearly in succession as I have placed them. A very nice way of keeping the autumn plums, or, indeed, those that ripen in summer, from wasps and flies, is to form the trees into compact bushes, which may be enclosed, when bearing fruit, in a muslin bag,—any common cheap muslin will do,—tying it tightly round the stem of the tree, so as to exclude the ants, which are great pests in dry and pleasant places. I have only to remark that the plum in orchard houses will to a certainty always give abundant crops, and as certainly ripen its fruit: in short, its culture will be sure to give satisfaction to those who love gardening.

After some years of experience, I have found the plum so easily grown

in pots, that I feel a new era in their cultivation has arrived. I propose that, for those who wish to grow a regular and certain crop of plums without incurring a heavy expense, rough-built lean-to orchard houses should be erected in some out-of-the-way corner of the premises, consisting of larch poles, rough half-inch boards, with two or three sliding shutters for ventilation,—in fact, merely a glass-roofed shed on purpose for protecting plum-trees in pots while in blossom and setting their fruit. It is surprising with what vigor and beauty plum-trees blossom even in the rudest glass structure, and as the trees need not remain in the house longer than the end of the first week in June,—for then all danger of severe spring frosts is over,—they may be placed so close together, that a house twenty feet by twelve, with a path in its centre, will hold ninety-six trees, forty-eight on each border. The trees may be planted in 13 or 15-inch pots, and treated exactly as other orchard-house trees; with this difference,—all the the trees having young fruit should be removed from the house in June, and placed in rows or otherwise in the garden, to ripen their fruit in the open air.* The pots may be plunged in the soil one-third of their depth, but not more; for if the roots are too cold, the fruit will suffer in flavor, and if the soil be wet and cold, it should be drained or made porous, so that the water passes from the pots rapidly, and the top-dressing of manure must be most abundant. As a matter of course, the very late plums must be ripened under glass; but all those varieties that ripen in the open air before the end of September may be there grown to great perfection, and regular annual crops insured, if care is taken to thin the fruit properly. If too large a crop is extorted, the tree *will* have a year's rest. It is quite astonishing how prolific these bushes become in a few years; and by merely pinching off the ends of exuberant shoots—which should be done about the end of June—to within three or four inches of their bases, they soon form themselves into compact round-headed trees, quite as ornamental as orange-trees in pots and tubs, and far more gratifying as regards utility.

The best varieties for this extended mode of plum cultivation in pots, are the Early Prolific; De Montfort; Denniston's Superb; Green Gage; Angelina Burdett; Woolston Black Gage; Kirke's; Guthrie's Late Green; Reine Claude de Bavay; Purple Gage; and, above all, the Jefferson, one of the most beautiful and delicious of plums. These are for the dessert; but as in some climates it may be necessary to grow plums in the same way for culinary purposes, I may as well give the names of a few good kitchen plums: such are the Victoria and Autumn Compôte, both large and excellent, ripening in succession; the Diamond; the Early Orleans; White Magnum Bonum; and Prince Englebert. The trees must all be removed to the orchard house the last week in October, top-dressed and watered, and then kept dry all winter. As the earth of these out-of-doors orchard house trees becomes very firm by the heavy rains of summer, an iron pick, to take out the mould in spring, will be found very useful. I gave a sketch in p. 265 of one which I have had made by the village smith. As plums are coarse feeders, I take the surface earth out to the depth of six inches at the side of the pot, sloping upwards to the stem, so as to be able to give them a large quantity of fresh compost.

To those who wish to grow plums under glass in large quantities, I beg

* There might be danger in this practice in America, from the curculio, without the muslin bag.—ED. HORT.

to point out a very simple mode of culture,—viz., planting a house with bushes or pyramids, and removing them biennially to check their growth: one of our most skilful gardeners, Mr. Monroe, grows them in this manner, and finds that, after two or three years, owing to the trees being every season loaded with fruit, they do not require removal, as they grow very slowly.

Cherries.—The Cerasus Mahaleb, Bois de Sainte Lucie, or Perfumed Cherry, has been long employed on the Continent as a stock for dwarf cherries; it will grow well in calcareous and shallow soils, unfavorable to the common cherry stocks. It is a very good stock for trees for potting; when grafted or budded on it, they form beautiful dwarf bushes: the May Duke and Morello cherries, of which there are several varieties, do much better on it than the Bigarreaus and Hearts, which are apt to gum, and grow too rapidly in proportion to the stock. Cherries are well known to be difficult to force, or to grow under glass: the blossoms generally fall without setting their fruit; but in our well-ventilated orchard houses, this is not the case.

Their potting, compost, and treatment may be exactly the same as that recommended for apricots: the tree should be formed into a nicely-shaped bush, with regular divergent branches; on each branch the shoots, all but one leader, must be pinched back in June to a spur of about two inches, and the leading shoot shortened in August to about six inches, till the tree has attained the size desired; the leader may then be shortened to one inch annually, and the size of the tree, if it becomes too bulky, reduced by the knife. The best early cherries for the orchard house are, the May Duke, the Archduke, the Belle de Choisy, and the Royal Duke,—which ripen in succession. Then of the Heart Cherries and Bigarreaus, the very earliest of all is the Belle d'Orléans; then the Early Purple Guigne; Knight's Early Black; the Black Eagle; Elton; Bigarreau Napoléon; the Bigarreau; and the Florence: I have placed them as nearly as possible in the order of their ripening. Of late cherries of the Morello tribe, which succeed admirably as dwarf bushes, there are Reine Hortense, a large and delicious sweet cherry; the Late Duke, also sweet, and of the highest excellence; Griotte de Chaux; Coe's Late Carnation, a most delicious late cherry; Belle Magnifique, a very large Morello-like cherry, but not very acid; and the Morello, which, when fully ripe, and black, in September, is not to be despised as a dessert fruit. All these may be made to supply the dessert through August, September, and, indeed, great part of October, by enclosing each bush in a muslin bag, tied tightly round the stem near the ground: the dry air preserves them from mould, and the warm climate gives them a flavor very superior to that of late cherries cultivated in any other mode. Cherries under glass are very liable to the attacks of the black aphis. There are two remedies for this pest: brushing the shoots, as hereinafter directed; dipping them in strong tobacco water; or covering the bush with a sheet of tiffany or calico, and placing ignited tobacco paper in a small flower-pot under it, so that the draught through the aperture at bottom is open. This a good method of fumigation.

In wooded districts it is almost impossible to taste cherries fully ripe, so numerous and destructive are birds: in such places cheap orchard houses might be built for their sole culture, in which the ventilators should be kept constantly open as soon as the fruit begins to color, but the openings must be covered with netting to keep out their winged enemies. They grow

remarkably well in pots, and in a few years become most fruitful, every spur giving a bunch of blossoms; nothing can be imagined more cheerful than a cherry orchard house when the trees are in full bloom in April and May.

Figs.—The fig is not a general favorite; but to those who like them, as I confess I do, their cultivation in the orchard house is interesting and most simple.

Figs may be planted in the compost already recommended, and in pots of the same size, top-dressed in spring, syringed in summer, and put to rest in autumn, and treated exactly as other fruits. Although fig-trees against walls require protection from the frost,—which would otherwise destroy the young fruit that is the first to ripen in early summer,—yet under glass, with the mould perfectly dry, and the shoots thoroughly ripened, they will be uninjured by the most severe cold. If a well-formed bush cannot be procured, the tree must be cut down the first season to within nine inches of its base; the shoots, when they make their appearance, thinned out to five: when these are about a foot in length, pinch off the end from four, leaving the central shoot for a fortnight or so to grow longer; then pinch off its end in the same manner. Your bush will be formed, but you must not expect any fruit the first season. In succeeding seasons it must be pruned in the same manner that you would a bearing tree purchased and placed at once in the house: *i. e.*, in May or the beginning of June, as soon as the young shoots have made five leaves, pinch out the terminal bud of each: they will then give fruit for a second crop, the first crop having been produced by the shoots of the preceding year. And to keep your trees as compact bushes, never allow any shoot to make more than five leaves without pinching out the terminal bud with the nails of the finger and thumb. The tree will, in a year or two, become too much crowded with young shoots; thin them with a sharp knife, leaving no spurs, but cut close to the main branch or stem. Figs like more heat than any other fruit yet mentioned; they may have the warmest corner of the house, not requiring much ventilation. A house with fire-heat is indeed necessary for them, if two crops in the season are wished for. In 1857 figs in common orchard houses ripened two crops of fruit in several instances. They must have abundance of water, or the fruit will all drop, when nearly full-grown, without ripening. The varieties best adapted for pot culture are, the Early Violet, the White Marseilles, and the Brown Turkey, or Lee's Perpetual: if more varieties are required, the Angelique and Black Ischia may be added.

To those who have not much orchard-house room, the following method of growing figs may be useful. In the summer of 1857 I happened to visit Altenburg, a small town, the capital of the Duchy, about twenty miles from Leipsic. In the kitchen garden of the castle I observed some fine half-standard fig-trees with very stout clear stems and round heads full of fruit, then (August) nearly full grown. Aware of the coldness of the climate, the thermometer often descending many degrees below zero in winter, so as to kill fig-trees in the open air, I inquired of the gardener how they were managed. He stated that every season, in October, they were taken up with their balls of earth and placed in a cellar, where they remained till the first week in May: they were then brought into the kitchen garden and planted in a row as I then saw them. He said they always ripened one abundant crop of fruit in September. I have reason to believe that stand-

ard figs treated in this way would also ripen one crop in the neighborhood of London, and in the Southern Counties.

Pears.—In the South of England, pears can be grown on pyramids with so much success, "barring" spring frosts, that there is no occasion to let them occupy room in the orchard house; still, in seasons like that of 1850, when, in even the most favored districts, all the blossoms were destroyed by spring frosts, I felt much gratification in having about a dozen trees in pots on quince stocks covered with fine fruit,—and more highly flavored Brown Beurrés I have never tasted. Their culture is very simple, for trees on quince stocks that have been root-pruned may be potted any time in the autumn, or even as late as February, and yet give a crop the first season after potting; as they set their fruit very thickly, they must be severely thinned the first season, and eight or ten pears ought to be the maximum of a crop. In two or three years a well-managed tree will be able to give from eighteen to two dozen finely-grown fruit. In the North this method of culture will be found both eligible and interesting; for glass without fire-heat will give just the climate suitable to the finer sorts of pears.

The pear-tree, when grafted on the quince, seems to be quite at home in a pot. I have some trees that have now been five years in 13-inch pots; they are in the most perfect health, and the stock seems to swell with the graft, showing that existing circumstances are favorable to its growth. I am inclined to attribute this healthy state of the stock, and consequently of the tree, to the roots of the quince enjoying, if I may so express it, the warm atmosphere which surrounds the pots during the whole summer; for my trees have been placed, unplunged, out of doors in the sun: in warm dry soils however, to economise water, it would be advisable to plunge the pots one-third of their depth in the soil. Pear-trees are gross feeders, and should have three or four surface-dressings of manure during the summer.

Pears deserve to be grown extensively in pots; and in climates liable to spring frosts, or in gardens having but little space for the finer kinds of pears on walls, a pear house may be built, as recommended for plums. The trees may be treated exactly in the same way, and abundant crops of fair-sized fruit obtained. Pears ripened under glass require attention as to the proper time of gathering them; they must not be suffered to hang too long on the trees; for in 1854, and again in 1855, in two or three instances, I had pears on my trees which were grown under glass all the season; these, although of fine size, and most beautiful in appearance, having clear skins of a fine golden color, without speck or blemish, never became soft; I was for some little time, I must confess, entirely at a loss to account for this curious fact, as all circumstances seemed so favorable to the ripening process; but I believe I have now discoved the cause. In the autumn of 1855 I allowed some Louise Bonne pears, some Passe Colmar, and a few other kinds, growing in the open air on trees well sheltered, so that no wind could displace them, to remain on the trees till the first week in November; they were remarkably beautiful, both in form and color, and the fine dry weather we had for so long a period seemed so favorable that I felt unwilling to gather them: these pears never ripened. I am, therefore, led to conclude that pears under glass should be gathered early, *i. e.*, as soon as they will part from their foot-stalks when lifted. From not being disturbed by the wind when under glass they will hang a long time, and one is loath to

rob the trees of their ornaments: they thus become hard and worthless from a species of over-indulgence.

From recent experience, I am induced to recommend that in the South of England pear-trees should always be removed from the orchard house in July, and suffered to ripen their fruit in the open air, in a sheltered yet sunny situation; their flavor will then be piquant and racy, more so than that of fruit gathered from wall trees.

The trees should be formed into bushes, as recommended for apricots, plums, &c.; the young shoots pinched in June, and the leading shoot of each divergent branch shortened in August to six inches; so that the tree gradually, but slowly, increases in size, every part being furnished with blossom-buds. An abundant top-dressing of the strong compost recommended for apricots must be given in spring, even laid up above the rim of the pot; and such gross feeders are they, that manure-water may be given to them every day in summer with advantage. The most prolific and eligible sorts for pot culture are, the Brown Beurré; Easter Beurré; Glou Morceau; Bergamotte d'Espéren; Gansel's Bergamot; Doyenné Gris; Beurré d'Aremberg; Beurré de Rance; Louise Bonne; Marie Louise; Passe Colmar; Josephine de Malines; Crassane: Winter Nelis; Beurré Clairgeau; Prince Albert; and Van Mons (Léon le Clerc). The above are all autumn and winter pears. If summer pears are desired, Doyonné d'Eté, Jargonelle, Citron des Carmes, and Colmar d'Ete, may be potted. In the North, where these early varieties do not ripen kindly in the open air, their culture under glass will give much satisfaction, for they may be brought to the dessert with their fruit in full maturity. I need not, I trust, say more about this really new and interesting mode of cultivating pears. My readers will, I hope, see its advantages, and many of them venture to put it in practice. I may, I trust, be allowed to add, that if I lived in an unfavorable pear climate, and wished for a certain supply of fine winter pears, I should fill a house with those two most delicious kinds, Josephine de Malines and Winter Nelis, which, unlike some sorts, ripen under glass with their full flavor.

Grapes.—For some few years it has been the fashion for gardeners in lordly places to grow grape-vines in pots, which, after bearing one crop of fruit, have been destroyed. Now these pots are generally of such large dimensions as to be quite out of character for our orchard houses, and totally unfit for the amateur who wishes to be master of "all he surveys." By observing in the land of the vine that grapes, and good grapes, could be grown on very small bushes, and in crevices containing but a scanty portion of earth, I was induced to try their culture in comparatively small pots, without destroying them after giving their first produce, continuing their culture without shifting, but top-dressing them annually, suffering their roots to feed in the border during the summer, and then root-pruning and managing them in the same way as other orchard-house trees. This has succeeded admirably, and my vine bushes have been beautiful objects, bearing from four to six bunches of nicely-ripened grapes.

To form these bushes but little care is requisite; a vine one or two years from the eye, with a single stem, must be selected, and potted into an 11-inch pot, in the same compost as recommended for other fruit trees, adding to each pot a quart of 1-inch bones, well mixed with the mould; then cut the vine down to within eight buds of its base: the three lower buds must go

for nought; the five upper buds, if the wood be well ripened, will give each a bunch. The lower shoots should be stopped, their tops pinched off as soon as they are four inches long: the upper five shoots may be suffered to grow till the bunch is perceptible; these may then be stopped one bud above the bunch, and all lateral shoots that afterwards come forth may be stopped at two buds from the base of the shoot they spring from. No other pruning will be required during the first season than this finger-and-thumb pruning. It is quite possible that some of the five buds may fail to give a bunch; no matter, stop them of the same length as the fruit-bearing shoots, so as to make a uniform pretty bush; for the vine in all sites and situations, and in all stages of its growth, is a beautiful object. You will now have an upright stem with five divergent branches or spurs. Now, on the pruning of these spurs depends success; they will, of course, from being grown under glass, be well ripened, and the buds well developed. Begin at the stem, and count four or five buds upwards; the fourth or fifth will, in all probability, be nice and plump. This must be your fruit-bud. Cut down to it closely; then with a sharp pen-knife *cut out* two or three buds, leaving the terminal bud and another at the base of the spur close to the stem. This will give you a shoot, which is to be your fruit-bearing shoot for the following year. You will thus have on each spur two buds, one for fruit, and the other for wood.

In autumn, that part of the spur which has borne fruit must be cut down close to the shoot which is to bear fruit the following season, and this shoot must be pruned in the same manner to one fruit-bud and one shoot-bud. This pruning should be done early in October, as the buds are then fully developed, and much is gained by autumnal pruning. A vine treated thus will last for many years, and may be always kept as a dwarf bush: the main stem, in time, will swell, and not require the support of a stick.

The first season the cultivator must be content with four or five bunches from the vine; but if it has its annual autumnal top-dressing of the compost described in p. 264, and in summer a weekly supply of manure-water, it will soon be able to bear eight or ten bunches, and become like one of those hardy prolific bushes one often sees growing in the crevices of rocks in the wine countries of Europe.

After their fruit is set, vines require syringing like other orchard-house trees. As soon as the fruit is gathered, prune off the roots which have fed them so bountifully all the summer, top-dress them, withhold water, and put them to rest for the winter. I may add, that vines do not need the extreme ventilation recommended for stone-fruits: a warm part of the orchard house will suit them best; or if a small house with a brick Arnott stove can be entirely appropriated to them, so as to force them, and have two, or even three, crops in the season, their culture will be most interesting. To do this, if forcing be commenced in January, put in one-third of your plants, early in March another third, and then in May the remainder. I do not hesitate to say that a house appropriated to vines in pots will give more fruit than the same space of glass with vines trained to rafters in the usual manner.

The varieties best adapted for this bush culture are those that are very prolific, none are more so than the following:—the Early Malingre; the Purple and Black Frontignans, most abundant bearers; the Prolific Sweet Water; the Purple Fontainebleau, also abundantly prolific; the Esperione;

the Grove End Sweet Water; the Cambridge Botanic Garden, a variety of the Black Prince, and a great bearer; the Chasselas Musquée; the Muscat St. Laurent; the Royal Muscadine; the White Romain; the Black Hamburg; and the Chaptal, which gives large and most beautiful bunches. It must not be forgotten that the berries must all be thinned when they have attained the size of small peas, or they will become crowded and inferior.

Apples.—There are a few delicious American apples which require more sun and a drier climate than that of our "tight little island," and these I feel convinced can be cultivated in the orchard house with success. They should be grafted on the Paradise stock, be planted in the same sized pots as other orchard-house trees, in the same compost, and have the same treatment with regard to summer pinching as apricots. The only sorts I know at present to be worthy of this in the South of England are some foreign varieties, among which are the American apples, the Newtown Pippin; the Northern Spy, a delicious, large, handsome, and good-keeping apple, with half-melting flesh; the Melon Apple, of equal goodness: these seem to require a warmer climate than the open air even of our Southern Counties. The Male Carle, a favorite Italian apple, may also be tried. In the far North, however, some of our fine English apples may be equally worthy of a place under glass: such as the Ribstone Pippin; the Nonpareil; the Golden Pippin; the Golden Reinette; the Van Mons Reinette; Coe's Golden Drop; the Sturmer Pippin, and some others. I hope one day to see orchard houses on many a sunny slope in the Highlands; and why not? If art and wealth can overcome Nature in making fruits grow instead of heather, the conquest will cause smiles rather than tears, and give a much greater amount of happiness than the "glorious victories" of our history.

Mulberries.—In the North this delicious fruit does not ripen kindly; in such localities dwarf plants in pots may be tried in the orchard house, and I doubt not but they will succeed well.

I may also add that White Currants, which are seldom well ripened, and even then are very acid, may be grown to great perfection in pots under glass.

Strawberries.—On the back border of the lean-to orchard house—for, unless the front is partially of glass, the front border is too much shaded—spaces will be found for strawberries in pots, and they give much pleasure and satisfaction; their fruit will ripen about ten days before those from plants in the open air, and to a certainty will not be spoiled by rain or vermin. Whoever has tasted fruit of the "British Queen" grown under glass without being forced, will, I am sure, have a lively recollection of their being much higher flavored than those generally gathered from strawberry beds.

Nothing in our orchard-house culture is so simple as the management of potted strawberries, and nothing will be so certain of agreeable results. About the middle of July take 6-inch pots, place two or three large pieces of broken pots at the bottom, so as to lie hollow; then mix your compost, which should be two-thirds loam—if rather stiff the better—and one-third rotten manure. You are so far prepared for operating; but you still lack an implement, and what a strange one in the hands of a gardener! for it is neither more nor less than a pestle,—a wooden pestle, fashioned out of any stout stake, and perfectly rounded at bottom: now then, take a handful of mould—nothing like the hand in potting—put it into your pot, and give it

a good pounding, and so keep on with a handful, and a pounding, till your pot is full, quite level with the brim, for the earth will afterwards sink enough to retain water. You will thus, if you have done well, make your earth level with the brim, and as hard as a barn floor. Take the pots to your strawberry beds,—and mind, there are but few strawberries known at present to be worth forcing or growing in pots in the orchard house,—Keen's Seedling and the Seedling Eliza for early sorts, and the British Queen and Carolina Superba* for a main crop, will suffice,—and place on the centre of each pot a runner which has commenced to make roots, or if no roots are apparent it will do as well, and on the runner place a small stone, to keep it from being blown off by the wind: make no hollow place: do nothing but place it on the hard surface, as I have directed. If the weather be dry, water daily; and if the runner, as is often the case, pushes forth another runner, pinch it off. In two or three weeks the roots will have penetrated to the bottom of the pot; the plant may remain attached to its parent till the middle of September, and then all the pots may be removed to their winter quarters,—some sunny place: they should be placed on rough cinders, and then plunged in sawdust or rotten tan. In February, they may be removed to the orchard house or forcing-house, as required; no shifting is requisite, and a plentiful crop will be the result.

Strawberry plants, treated in this manner, attain much strength and luxuriance in the autumn; their fruit-buds will be finely developed, and they will be all that the gardener can wish them to be. This very simple mode of treating strawberries for culture under glass is not new; it was pointed out to me by a market-gardener some years ago. I have practised it ever since, and am more than ever pleased with it. In growing strawberries in pots, it is the usual practice to place them on shelves close to the glass. In the orchard house at Hyde Hall, I have seen, annually, remarkably fine crops; the pots are placed among the peach-trees, on the back border, six feet from the glass.

The following extract from the "Gardener's Chronicle" of June 7, 1856, seems to give a very nice mode of cultivating strawberries in pots:—

"In the garden of the Horticultural Society, in the year 1855, Mr. Gordon caused runners to be taken up from the ordinary plants in the open borders in the first week in August, and potted in 2½-inch pots (small 60s); the soil used was a mixture of rotten cow-dung and loam (quarter dung, three-quarters loam). When potted, they were placed in a close frame until established, and when the roots had filled the little pots, which was in about four or five weeks, the plants were shifted in the same kind of soil as before, into 4-inch fruiting pots (48s). They were afterwards transferred to a fully exposed situation in the open air, where they remained until the first week in December, at which time they were removed to a border in an unheated orchard house, where they were kept rather dry during winter. On the 14th of March the pots were removed to the front shelf in a curvilinear vinery, kept at a temperature of 40° until the middle of April, when the temperature was raised to 55°. The plants were watered twice, when the fruit was fairly set, at an interval of three days, with a weak liquid manure, made with half-rotted cow-dung and water, allowed to stand a few days before using. The result was an abundant crop of excellent fruit."

* The experiments that have been tried with strawberries for orchard houses in America, have shown the following to be the most successful: McAvoy's Superior, Albany Seedling, Goliath, and Ohio Mammoth.—The *largest* have been Omar Pacha.—[ED. HORT.]

Almonds.—To those who wish to be reminded of the "sweet South," by having almonds fresh and ripe from the tree, the orchard house will give one more tribute. Almond-trees in pots require exactly the same treatment as peaches and nectarines; but the choice of the proper sorts is of consequence. The Sweet Almond in common cultivation, and which is so conspicuous in our shrubberies in March, with its bright pink blossoms, is not the variety to be selected. The only sorts worthy of cultivation are the Tender-Shelled Almond—"Amande à Coque Tendre," and the Large-Fruited Almond—"Amande à Très Gros Fruits;" the former has shells very tender and easily broken with the fingers; the latter gives large fruits with shells not quite so tender. They require, however, even more air than peaches, while in bloom, and if the weather be dry and sunny they should be placed in the open air by day, removing them to the house at night: if this is inconvenient, they should be placed near one of the ventilators, which should be open night and day.

THE FORCING ORCHARD HOUSE.

This kind of fruit house may be built in the same way as the common orchard house; but it is necessary to nail felt over the boards to prevent its being too airy in early spring, when forcing is commenced. It requires skill and attention; still, with only common care, a house heated by a brick Arnott stove placed in the centre, or by hot-water pipes, will not disappoint the careful amateur gardener, and will give strawberries in March, grapes in May, and peaches and nectarines in June.

I have a house thirty feet long, with a brick Arnott stove in the centre of the back border, which is excavated for it. Everything thrives admirably. My forced strawberries, placed on the front border near the glass, root into it, and give me abundance of excellent fruit. In like manner, peaches, grapes, figs, and apricots may be forced with but little trouble—in fact, with much pleasure and gratification. The three modes of heating are by a well-built flue, the brick Arnott stove, and hot-water pipes; the first and second are about equal as regards economy,—the latter the most expensive, but certainly more agreeable than any other. A flue may be employed for houses under fifty feet in length and twelve or fourteen feet wide, efficiently, but not, I think, for houses above that length. Any country bricklayer can build one: its dimensions inside should be nine inches deep, and six inches wide, formed by bricks on edge, covered with two layers of tiles: the furnace should be fixed low, so that there is an immediate ascent from the end of the furnace into the flue, and a gentle rise—three inches in twenty feet—should continue to the chimney, which may be less than the flue with advantage, according to some gardeners; it is not, however, of much import. In building these *forcing* orchard houses the *constant* ventilation through the cracks in the boards must be avoided; the boards must be rebated or be cased with asphalt felt; or, as bricks are cheap, the walls may be of brick, with the ventilating shutters in back and front. The forcing orchard house I have alluded to above is built with posts of larch cut once down and covered with half-inch boards; these being nailed on, were well tarred with Stockholm tar, and the felt (M'Neil's) then nailed on, and done over twice or thrice with boiling coal-tar, in which lime that had been slaked a fortnight was mixed to the consistency of thick paint: this has formed a shining imperishable mineral coat. I know of nothing equal to it

for felt, clay, or lime walls or fences. My clay walls on some old buildings have, by repeatedly using it, become coated with a substance as hard as stone.

I have mentioned that bricks may be used; but although I have many plant houses built with bricks, I have not employed them for building orchard houses, or even houses for forcing roses, &c. My preference for boards covered with felt for forcing houses may be owing to imagination; but I may as well state *why* I have and do prefer them;—it is because I have found them fiercely hot during the day, even in moderate sunshine, the evil effects of which are easily modified by abundant ventilation, and agreeably cool during the night, without that stifling atmosphere peculiar to houses with brick walls, only because bricks give out heat for many hours after sunset. Now, in thus rapidly cooling down, they certainly approximate to the descriptions given of the climate of the East, the birthplace of all our choice fruits; and so my peaches, nectarines, grapes, and figs grow and do well in houses with their walls of half-inch boards and felt.

Forcing of peaches and nectarines in pots, unless the fruit is required to be ripe very early, *i. e.*, in April, or early in May, is not a difficult operation. The trees should be removed from the orchard house to the forcing house in December, and towards the end of the month have a good supply of water, so as to thoroughly moisten the earth; if severe frost comes on, a fire should be lighted at night to keep the earth in the pots from being frozen. About the middle of January forcing may be commenced, the temperature by day kept up to 50° by fire-heat (if the sun shines it will mount up to 60° and 70° for a short time without injury to the trees), the night temperature may go down to 40°. The trees should be syringed twice a day with tepid water; this will soon make the blossom-buds swell; and when they are fully open, which will be in about twelve days, discontinue syringing, and, if the weather is mild and sunny, give air very freely in the day and a little by night, so that no stagnant moist air, so fatal to the blossoms of the peach, exists in the house; if the weather is keen and frosty, air must still be admitted, and a brisker fire kept up, so that the temperature is not lower than 50° by day and 36° by night. Close worsted netting, or Haythorn's hexagon netting, placed over the ventilators, will allow of air being given night and day, even in frosty weather, without injury to the blossom. As soon as the fruit is set and commences to swell, syringing twice a day (with tepid water), as directed for peach culture in the orchard house, may commence; a day temperature of 60° and a night of 40° to 45° should be kept up, and, when sunny, abundance of air may be given, for the thermometer will then rise to 80° and 90°; instead of lowering the fire, which may lead to inconvenience, admit more air, to lower the temperature, for gleams of sunshine in our early spring months are not of long duration, and the temperature is completely at command by the ventilators. To sum up, give brisk fire-heat and abundance of air by day; very little fire-heat, or none if the weather is warm, and a slight portion of air by night; syringe twice a day—in the morning at 9, in the afternoon at 4—till the fruit commences to color, and peaches and nectarines will ripen kindly, early in June, and be of fine flavor.

Apricots, May Duke cherries, and plums, may also be forced; and although in large establishments the two former often have houses especially allotted to them, as they require much care to fully succeed, yet a few trees placed

near the ventilators, for they require even more air than peaches and nectarines, may do very well with them. It is a good practice to thin out the clusters of blossoms on the May Duke cherries with sharp-pointed scissors before they open, taking out quite half from each cluster.

[To be concluded in our next.]

MYRICA CALIFORNICA.

Raised from seeds collected by Hartweg in California; received at the Garden June 5th, 1848, and said to be collected in woods near Monterey; growing twelve feet high.

This was originally gathered by Menzies, on the north-west coast of

America. Douglas found it at Puget Sound. It forms an evergreen bush, with dense, narrow lanceolate, slightly serrated leaves, covered, especially on the under side, with transparent, glossy, saucer-shaped sunken scales, of microscopical dimensions, consisting of a layer of wedge-shaped cells, placed obliquely round a common centre. The flowers are green and inconspicuous, in short axillary spikes, which eventually bear from one to

three small globular fruits, whose surface is closely studded with fleshy, oblong, obtuse grains of a dull red color, and astringent flavor.

It is a hardy evergreen, growing freely in any good garden soil, increased by seeds or by layers, in the usual way. It flowers in July, and produces in September an abundance of its little granular fruits. In gardens it is an acquisition, being a hardy shrub, with fragrant leaves, and well suited for rockwork or for the front of a shrubbery.—*Horticultural Society's Journal.*

WHY HAVE WE NO TUTOR FARMERS?

BY CHARLES REESE, BALTIMORE, MD.

Why have we no tutor farmers? No thoroughly practical and efficient instructors for our sons in the noble science of agriculture? We find as we pass along the highways of life, hundreds of lawyers and doctors, whose doors are ever open to students, and thousands of merchants eager to secure capable and honest clerks, but no farmers advertising for young men to become candidates for the high honors of their grand and elevating profession. Now why is this, and why is it that year after year we find hundreds of young men, sons of farmers, wending their ways to our large cities in search of employment, when there is such an extended field of usefulness at home? Why are our Theological Seminaries, our Law Schools, and our Medical Colleges crowded to repletion with eager aspirants for power and wealth, most of whom are the sons of farmers and planters?

These are grave questions, but we think they are not incapable of solution, as these things are all the legitimate effects of causes which are quite ascertainable.

In the first place, we have sadly perverted the heavenly principle of civil and religious liberty, and by our shameful abuse of this benediction of Providence, have almost made it a curse. The idea of *freedom in its largest sense*, has penetrated so thoroughly the delicate framework of society, that time-honored customs, and distinctions between virtue and vice, that have been hallowed by the approval of the wise and good in all ages, are daily upturned, and the time is fast approaching when the principle of obedience to parental authority, the very shield and bulwark of our national existence, will be trampled under foot.

Destroy these safeguards entirely, and the despotism of France would be far preferable to liberty at such a sacrifice. It is a moral impossibility for "Young America," in either town or country, now-a-days, to follow in the footsteps of his grey-haired sire. In his vocabulary the word "*Progress*" means to commence in everything where his father ends; consequently, if he decides to become a merchant, as soon as he comes into power, the counting-room in which for thirty years his father had transacted business, and had grown rich by saving money, suddenly becomes very dingy and dark, and must be enlarged; must have a lofty ceiling, with light admitted from above through purple and crimson glass; must have new desks and a fine Brussels carpet, &c., &c.; and the storefront, of elegant pressed brick, which for many years was the handsomest on the street, must give place to an elaborately wrought brown stone, or richly carved marble facing, of high cost. Or if he becomes a farmer, the idea of cutting wheat with a scythe and threshing it

with a flail for twenty years, as his father had done, until he becomes rich enough to purchase the latest improvements, is positively absurd. He must have at the outset, the very best "reaper, and mower, and raker," with, if possible, a binder and stacker combined, and the best "horse power" in the known world; and as not one farmer in fifty can afford to buy these for all his sons, away they go as soon as their coarse voice comes, and their beards begin to grow, to the larges cities, where the chances of making a fortune are said to be greater, but where they are in reality, at the present time, incomparably less: and what is the consequence? The cause of agriculture loses a brave champion for want of a proper training when young; and Commerce, Physic, or the Bar, has to support an indifferent or altogether worthless member, whose ultimate failure is almost certain from the fact that his affections were not in his business,—his heart was amongst the birds and flowers of his native hills,—and who, in nine cases out of ten, after wasting fifteen or twenty of those ripe full years, "when life was in its morning prime,"—those strong, fruitful years that never return—will crawl back to the old homestead a broken-hearted and disappointed man, to eke out a miserable existence, perhaps to die, "unwept, unhonored and unsung."

This is not an overdrawn picture. It must be evident to every reflecting mind, that for half a century this evil has been annually growing worse and worse, and that unless the unerring hand of Divine Providence is mercifully outstretched to remove the forces which have so disturbed the beautiful relations of town and country, a long night of anarchy and confusion will close in around us, from which, for many generations, there will be no awaking.

In a truly healthy state of society, the relations of town and country are very similar to those of husband and wife, indissolubly connected for the common good; and, as it was once beautifully said of married partners, "*their independence was equal, their dependence mutual, their obligations reciprocal,*" so it may be said of, them. As soon as these relations are disturbed, as soon as the equilibrium is destroyed, disorder creeps in, the devil sets up his throne, and in a very short time a jail and penitentiary are needed. That these relations are now disturbed, no one will deny who has observed the large number of idle vagabonds prowling about the streets of all large towns, and marked the fearful increase of crime which the police records indicate.

What then is the remedy proposed? What will restore the equilibrium, and check the gigantic strides of this insatiate monster, who is daily, hourly robbing the green hill-sides of Maryland, Virginia, Pennsylvania, and the Carolinas, of their fairest flowers, and crowding them into our heated cities to sicken and die? The plan is a simple one;—based upon the heaven-descended principle of reciprocity, it must commend itself to the earnest attention of all. There must be mutual action and reäction, equal rights and mutual benefits enjoyed and yielded by each. Away with all petty jealousies. Let the towns restore to the country what they have deprived her of,—her glory and strength, her young men, those to whom she must look for power, for wealth, and advancement. If they cannot do this, let them give their own sons. Let the sons of the merchants, who have grown rich by trading in the produce of the soil, become *the pupils of the farmer.* Let them be instructed in every branch of agricultural science. Let them be told, whilst at their mother's knee, of Cincinnatus, of Alfred the Great,

of Charlemagne, and the incomparable Washington; and when they are old enough, let them follow the plow, and learn to watch over the golden grain until it is safely housed from the wintry rain. Let them learn to cut off a pig's tail and slit his ears; to cure him of the staggers, as well as to bridle and mount the untamed Bucephalus; and when they graduate, give them good lands, and good tools to work with; and this above all,—let them feel that in their hands, under the direction of an ever-watchful Providence, are the destinies of the American Republic, and all will be well.

What will be the result? Ten thousand young men, with means to farm profitably, annually sent to the country, will richly compensate for ten thousand poor young men who come to town for employment, and ten hundred thousand acres of land, now lying waste, would annually be brought under cultivation, thereby increasing the productions of the country to an incalculable extent, and enhancing the value of every acre of land throughout the Union. Nor is this all; of the hundreds and thousands of merchants, and mechanics, and lawyers, who annually go to the country because it is fashionable, consequently necessary, as soon as their wealth reaches a certain point, and who, after spending a fortune in doing nothing but deep and lasting injury to the cause of agriculture, by downright ignorance of the first principles of farming, return to town, thoroughly disgusted with country life, after an experience of a few months, a large number would have competent and efficient managers in their own sons, and would not only have the pleasure of seeing the wealth they had labored to acquire *well and wisely* used in the accomplishment of great ends, the natural result of the union of mind and means, but would have the proud satisfaction of seeing their sons ascend, step by step, to high places in the estimation of their fellow-men.

In the earnest hope that abler minds will take hold of this subject, and give it the consideration it appears to deserve, this article is written. There are, without a doubt, in all our large cities, great numbers of wealthy men, who are willing, this day, to place their sons with *tutor farmers* if they had an opportunity. Some of the States are waking up to the importance of Agricultural Colleges, and a vast amount of good will be done in that way; but boys educated in masses cannot possibly be so well prepared as where only two or three are in the hands of a competent instructor; and besides, in the family circle of the farmer they would have the blessed home influence, so dear to every parent's heart.

Gentle reader, whoever thou art,—brother, countryman, neighbor or friend,—do not pass this suggestion by. Take it home with thee; talk of it by thy fire-side. Look at that rosy-cheeked, brown-haired boy by thy side. What is to be his future? His bright eyes look imploringly to thee for help. Speak to him gently and tenderly, and he will do for thee whatever thou wishest. Choose for him, and he will one day bless thee for thy goodness. Leave him to choose for himself, and perhaps he will curse thee for thy neglect.

Baltimore, March 29th, 1859.

ON HYBRIDIZING.

BY FOX MEADOW.

Mr. Editor :—If we were asked by some person how the human mind could be improved,—how the human soul could be made radiant with joy,—how to gain a positive knowledge of, and be able to realize in a degree the great creative power of God, we should say, *study nature* ; and I plead ignorance of any branch better adapted for intellectual exercise than the pursuit of horticulture and floriculture.

There is in the cultivation of fruits and flowers a lovely attractiveness which the outside world little dreams of ; a charm for the most vacant mind ; a plane of thought for those whose mental capacity probes *far down* into cause and effect ; a field of study for those of most austere thought, and an *invitation* from beauty and loveliness in every phase that can yield pleasure and delight to the most fastidious, as well as the humble mind.

The heart that bears no affinity to those beauties of loveliness must be cold indeed. The warble of the blue-bird, and the song of the robin never drops in sweet cadence on his soul, and the man must walk in comparative darkness to all that belongs to higher life.

Perhaps one of the greatest pleasures derived from this pursuit is the art of HYBRIDIZING—raising new and improved varieties of fruits and flowers ; for however beautiful flowers are in a state of nature, they are doubly so when they come from the hands of the skilful hybridizer.

In doing this he is only taking advantage of the known laws that govern the vegetable reproduction ; he is assisting nature, and to this means we owe, in a great measure, our many improved fruits and flowers of the present day. The field of experiment is almost as boundless as is that of nature itself. The hand of the artist is fast changing the character and quality of our fruits as well as flowers. You see him standing in his garden admiring some beautiful flower ; but, alas ! it is too delicate for our changeable climate ; it comes from some country perhaps where frost never congealed its flowing sap or blighted its opening beauties ; still he admires and covets it ; he has some of the same family in his garden, hardy fellows, that brave every blast, but they want the color, form and substance of the exotic. Our amateur is one who has studied the structure and functions of plants, and the laws by which those functions are governed in their operations. He thinks he can transfer the beautiful inflorescence of the exotic to its hardy relation in his garden, *and he does so;* art and perseverance triumph over all ; his skill and forethought are crowned with abundant success.

In thousands of instances has the transfer of inflorescence taken place, to the gratification and delight of every admirer of nature's most lovely productions.

Again, you see him perhaps mourning over his pet Isabella ; mourns because the cruel frost has withered its beautiful fruit some few days before it was ripe ; *hybridizing* flashes across his mind ; 'a variety a little earlier, worked on my Isabella? Yes ; the hybrids most likely will be just what I require;'—but then he recollects that some great botanist says it can't be done; but our amateur does his own thinking, and he feels determined to

have this difficulty obviated. He watches the opening flowers on his vine momently, and determines the period when stamen, and anther with its fecundating dust, must be removed, and with the pollen of his favorite sort impregnates the stigma artificially, and it becomes the male parent of the young progeny.

What is the result? Just that which he expected: the hardy, productive constitution of the female combined with the early ripening of the other. He is satisfied, gratified, and amply rewarded, but it has not been gained without toil, care, observation, and perseverance; some years were spent in hybridizing by following the rules of others, producing some good, others good-for-nothing seedlings, and the remark was often made in reference to them—'*They sport—run out; how singular it is that seedlings will so degenerate.* This is exactly like that old so-and-so that I had here some three or four years ago, and here is a white seedling from a red or purple one. How is it that *you* get just what you want?' 'Stop, friend; did you ever *think yourself* about this—did you ever *think* that there are no effects without their cause? Well, there must be some cause for all this jumble. Now try this plan, and mark it well—never impregnate a plant that has ever before been impregnated by a different male variety; because if you do, you may expect some of the seedlings to bear the identity of male parentage of years gone by.' However strange this doctrine may appear, it is a truth. It appears that, under some peculiar influences, the female organization becomes in a measure daguerreotyped with the first impress of the opposite sex, and the chances are as favorable to that of retrogression as they are of progression. So well is this fact understood among the animal stock-breeding physiologists of England, that it is to this fact almost alone they owe their great success in the constant production of their fine breeds; and I would earnestly call the attention of all who are interested in the production of the superior quality of fruits and flowers, to give this matter their calm consideration, as they will find in the end that it will be a saving of much anxiety, trouble, and expense.

We could better substantiate the truth of this statement by entering more largely into the subject of animal physiology, but as that subject does not come exactly within the limits of the *Horticulturist*, the above must suffice.

BROWN SCALE.

ABOUT THE THORN-APPLE.

BY J. STAUFFER, LANCASTER, PA.

This rank and luxuriant weed, known as "*Jamestown Weed*," or as it is improperly called, "Jimson Weed," and vulgarly, "Stinking Tom," presents many interesting features. The German name "Stechapfel" is analogous to the common English name at the head of this article. Its scientific generic name, Datura, is a corruption from the Arabic *Tatorah*. Its botanic name is Datura Stramonium. Whence its specific name of Stramonium is derived I am unable to say, unless it comes from the word "stramen"—straw, *litter*, or the like, from the fact that it is so common among rubbish in neglected spots of rich soil.

This plant is seldom found remote from cultivated grounds; it is so common around dwellings, along road sides, and borders of fields, that all will readily know the plant by the rude wood cut of a flower and leaf of the

DATURA STRAMONIUM.

There are two varieties, those having white flowers on green stalks being the most common, and those having a purple stripe in the flower, and also purple stems, with minute green speckles or spots, considered a distinct species by older writers, and called the *D. tatula*.

Its native country is not positively known. In Miller's Dictionary by Martyn, the editor in common with other authors refers it to North America.

Nuttall considers it as having originated in South America or Asia. The seeds retain their vitality for some time, and, lodged in the earth used as ballast, are thus carried from one country to the other, and hence it is found in all commercial regions.

Gerard in his Herbal for 1597, figured the plant, and gave the first satisfactory account of it. He introduced it into England from seeds received by him from Constantinople. He says: "The juice of Thorn-Apples, boiled with hog's grease to the form of an unguent or salve, cureth all inflammations whatsoever, all manner of burnings or scaldings, and that in a very short time, as myself have found by my daily practice, to my great

credit and profit." Reader, stick a pin here, if this is news to you ; I can vouch for its great curative power, as a salve, by simply collecting the leaves when the plant is in flower and frying them crisp in lard, expressing and setting by to cool.

Wagoners and plowmen often use the green leaf to apply to galled spots on horses, and, by removing the cause of the gall, cure the sore while working the animal.

Every part of the plant in its green state has a strong, heavy, disagreeable odor, and a bitter, nauseous taste ; taken internally it acts like other narcotic poisons, producing more or less cerebral disturbance, vertigo, perversion of vision, delirium and mania. It is therefore dangerous to tamper with internally ; the seeds are the most powerful. Even the long plaited bells of the flowers have tempted children to pluck them and suck them as they would "honey-suckle," and produced alarming effects, of which several cases have come to the writer's personal knowledge. The remedies in such cases are, a prompt emetic, followed by a free use of vegetable acids (lemon juice or vinegar) and strong coffee.

In the hands of a judicious physician it is found a valuable medicine, and was first introduced into regular practice by Baron Störck of Vienna, in the cure of mania, epilepsy, etc. Others have found it an efficacious palliative in asthma, and some other affections of the lungs, prepared and smoked as ordinary tobacco.

Many stories have been related of the power of this plant to produce mental alienation without at the same time materially affecting the body, one of which is recorded in Beverly's History of Virginia, p. 121, and reads as follows :

"The *Jamestown Weed* (which resembles the thorny apples of Peru, and I take it to be the plant so called) is supposed to be one of the greatest coolers in the world. This being an early plant, was gathered very young for a boiled salad by some of the soldiers sent thither to quell the rebellion of Bacon, and some of them ate plentifully of it, the effect of which was a very pleasant comedy, for they turned natural fools upon it for several days. One would blow up a feather in the air, another would dart straws at it with much fury; another, stark naked, was sitting up in a corner like a monkey, grinning and making mows at them; a fourth would fondly kiss and paw his companions, and sneer in their faces with a countenance more antic than any in a Dutch droll."

"In this frantic condition they were confined, lest, in their folly, they should destroy themselves. A thousand simple tricks they played, and after eleven days returned to themselves again, not remembering anything that had passed."

The above may readily be credited, yet there are exaggerated accounts of its marvelous powers, which in the days of credulity even the Royal Society of London were simple enough to believe—since they gravely inquired of Sir Philberto Vernatti "Whether the Indians can so prepare the stupifying herb Datura that they make it lie several days, months, or years, according as they will have it, in a man's body; and at the end kill him without missing half an hour's time ?"

In the language of flowers, this is taken as emblematic of *Deceitful Charms*, and very appropriately. The bells of the Thorn-Apple droop during the heat of the day, and languish like some of our enervated city *belles ;* on

the approach of twilight, however, they revive, coquette-like, to display their plaited corollas of ivory hue, giving out an odor which, with their *deceitful charms*, entices the giddy insects that rove abroad at this season to sip its intoxicating nectar even to stupefaction. Thus it is helplessly imprisoned, until it drops to the ground, and restored again by that sun which causes the flower to droop, if indeed it be not past remedy.

The Datura, improved by cultivation, is now classed by botanists as Brugmansia, of which the Knightii is a beautiful garden ornament, as well as the Double White.

ON THE CULTIVATION OF SEA KALE—CRAMBE MARITIME.

BY FOX MEADOW.

HAVE often thought what a valuable acquisition this hardy perennial would form to our early vegetables in the spring, coming in perhaps a little later than asparagus, yielding its bounteous supplies for five or six weeks, when vegetables are generally scarce, equal in almost every respect to the much esteemed asparagus.

How little do we know of it here; yet our markets should be as plentifully supplied with sea-kale as any other vegetable. Perhaps it is not generally known; let some one of our market gardeners introduce it, and we have no doubt but he will be amply remunerated for his trouble. What was rhubarb seven years ago? Mere *dock leaves*. What is it now? *vastly different*, when for the few bunches of *dock leaves* sold for a *few shillings*, *tons* of excellent grown rhubarb has taken its place, and the *dollars* in the place of the *shillings*. Hence, we see that it only requires an introduction, and then the good properties of good articles always command a ready sale.

How to produce this delicious vegetable for the *million* seems to be the question, and profitably to the producer. First—The plant luxuriates in a light, rich, sandy loam; thousands of acres of such land on Long Island, Jersey, and almost everywhere, is just the soil to produce it to perfection. We would suggest the following mode of cultivation. Take, for instance, an acre of ground, thoroughly ploughed and harrowed down, mark out drills with a one-horse plough, six feet apart, and two inches deep, sow seed thinly, and when up, hoe the young plants out to twelve inches apart, keep clean with the cultivator through the summer. In the fall, when the frosts have destroyed the foliage, plough two deep back furrows over the crowns of the plants; this will protect them through the winter. The next season repeat the same operation, and the plants will be strong enough for cutting the following spring. Let it be understood that the plants require two seasons growth before commencing cutting.

Now, as sea-kale requires to be *blanched* to bring out its good properties (when *green* it is bitter and worthless), we do it as follows: In the fall, say November, ridge up the plants eighteen inches or two feet high (similar to moulding celery); in the spring rake off ten or twelve inches, and let the remainder stand undisturbed till you perceive the *crowned heads* pushing through and heaving up the soil; then you can cut away as fast as you

please. Cut it off square where it bursted from the root—if you cut *too low*, you cut off the undeveloped eyes or buds that should produce the succession, and at the same time mutilate the plant.

By this process, two desirable objects are effected at the same time,—namely, protection through winter, which also blanches the kale in the spring. The third year we should top-dress with any kind of manure that is most convenient—sea-weed makes an excellent manure for this plant.

The crop of kale being all cut for the season, the ridges should be levelled down, the ground top-dressed with manure, closing it up round the crowns of the plants with a little sand, into which they emit new roots freely. In a short time the whole surface of soil will be covered by the large foliage of the kale, rendering the cultivator useless; a solitary weed may be seen here and there, but being of no great importance, can be drawn by hand. We have seen beautiful kale grown in this way, and when the soil had been well manured, it resembled the heads of medium size cauliflowers more than any thing we know of. This delicious vegetable, when served up similar to asparagus, is second to none, but before it can be appreciated it must take its stand at the table. It forms also an excellent ingredient in soups—oftentimes saves the reputation of our valuable cooks, for they cannot well destroy it by over boiling, and when it comes under the charge of the *Gardener* it is so easily forced that he can send it to the table for six months.

We would also remind the cultivator of sea-kale, that during its natural growth through the summer, should it throw up its white blossoms for seed, they must be nipped off at once with the finger and thumb as soon as possible; this operation increases the number of *crowns* to the plant, strengthens the constitution, and increases the radical.

The plant belongs to the class and order "Tetradynamia Liliquosa," and natural order "*Cruciferæ*."

SEEDS OF TIMBER TREES.

"I shall be glad if you would tell me the method how and when to pull, preserve, sow, &c., the seed of the following forest trees:—*Fraxinus excelsior*, *Aser psuedo-platanus*, *Æsculus hippocastanum*, *Alnus cordifolia*, *Cratægus oxyacantha*, *Fagus sylvatica*, *Larix Europæa*, *Picea amabilis*, *Pinus Austriaca*, *Ulmus campestris*."—J. O. G.

[Forest-tree seeds are gathered when they are ripe. Such as ripen late in the autumn should be well but slowly dried, and put away in bags till spring. The Fir tribe, such as the Larch, the Silver Fir, Cedar of Lebanon, &c., should be gathered about November or December, as the weather will permit. They should be laid in a warm room where brisk fires are kept. The heat will cause the scales to open, and let the seeds drop out. In obstinate cases it may be necessary to drive an iron peg down the centre of the cone, forcing it open to get out the seed. The Cedar of Lebanon has cones so hard and close, that it requires considerable force to get at the seed.

The seeds of *Fraxinus excelsior*, or common Ash, may be gathered as soon as the leaves fall off the trees, dried, and kept till spring, or they may be allowed to hang on till February, and then gathered and sown directly. The Mountain Ash bears, as is well known, red berries. They con-

tain the seeds amongst the pulp. Gather them when ripe, crush the berries, and wash the pulp away in water, draining it through a sieve fine enough to retain the seed. Spread it on paper to dry, and then put it in paper, and keep it in a dry room. Sow in prepared ground in April. *Acer pseudo-platanus*, the common Sycamore, ripens its seeds in July. They should be gathered then, and moderately dried, and kept in as cool and dry a room as possible ; if warm and moist the seed will sprout and spoil. Sow in March. *Æsculus hippocastanum*, the common Horse Chestnut, ripens its nuts in October. They are enclosed in a prickly shell, which bursts naturally, and the nuts may be gathered easily. *Cratægus Oxyacantha*, the Cockspur Thorn, ripens it seed in November and December. It should be treated the same as the common Thorn ; that is, the berries or haws should be gathered about October, laid in a heap, and covered with soil for a year ; then taken out of the soil and sown in either beds or rows (the latter is preferable,) and they will come up the year following. *Fagus sylvatica*, the common Beech, ripens its nuts in the autumn, and should be gathered as soon as they are ripe, or the squirrels and mice will destroy the best nuts, or conceal them for winter food. They should be gathered on a dry day, and placed in a dry room secure from vermin, till the sowing season arrives. That season is April, for if sowed sooner the late frosts will kill the young trees. The ground should be dug deep, and be well drained if necessary. It should be in good heart ; that is, the year before it should have been under a crop of Potatoes, Turnips, Celery, or any other crop that requires well manuring. Then draw drills a foot apart, and one inch and a half deep. Sow rather thickly, for some may not grow.

Larix Europæa is the common Larch. I have already described how the seed should be gathered, cleaned, and preserved. To raise the plants it is needful to prepare the ground with great care. It should be ridged up in the autumn to receive the benefit of frosts, and be levelled down in the spring, chopping it very fine as the operation goes on ; then towards the end of April, during dry weather, set out the beds three feet and a half wide, with two feet alleys between. Draw with a rake one inch of the soil into the walk, taking half the bed to one side and the other half to the other side ; then sow the seed evenly over the bed, and cover it exactly half an inch deep ; then level the surface with the back of the rake, and the operation is finished. Nursery laborers are very proud of their skill in this part of their business, and certainly some of them are very expert. The beds look so neat and tidy, that it is really a pleasure to view them.

Picea amabilis (the charming Silver Fir). I fear there is little hope for years to come of this fine species bearing mature seed. Whenever it does it should be managed exactly in the same way as the common Larch.

Pinus Austriaca requires also the same treatment.

Ulmus campestris (the English Elm). This tree ripens its seeds in June, giving the cultivator time to sow them and get the plants up the same season. The ripening of the seed is easily known by its falling from the trees. It may then either be swept up, or the gatherers may with ladders pluck the seed off the branches. The ground, should, of course, be ready to receive it, and then the seed should be sown immediately.

Alnus cordifolia does not ripen its seed till late in the year ; hence it requires to be gathered, cleaned, and kept till the following spring. As the seed is very small, it should be covered very lightly.

One point must be carefully attended to in raising such forest trees as have small seed. In dry weather it is absolutely necessary to water freely and regularly, for if the seed once sprouts and the soil is dry, the infant plant will perish.

I hope I have answered our correspondent fully and satisfactorily, and I trust such information will be acceptable and useful to many of our readers. I shall, at some future time, give similar directions on raising many shrubs from seed.—T. Appleby, *in Cottage Gardener.*]

ON SELF-RENOVATION IN TIMBER TREES.

There is a Walnut-tree here, the history of which is curious and instructive ; and as it tends, in some degree, to confirm what I have lately stated concerning bark and wood, I beg to say a word or two on the former state and present appearance of the tree. It faces the eastern front of the stables, and is about thirty paces distant from them. More than eighty years ago, my father ordered it for execution, as he foresaw that ere long it would interfere with a favorite Scotch Fir. A gun-maker, who was standing by at the time, offered a price for the bole if it would be allowed to remain upright until it suited his convenience to send a conveyance for its removal. Whereupon, there and then, as the lawyers say, the tree was decapitated just nine feet from the ground. But the gunsmith never returned to take the tree, not having paid for it.

During the following spring, the still standing bole sent out a single solitary bud, just at the place where the upper part of the tree had been separated from it by the woodman's axe and saw. As no signs of further vegetation appeared, the bole was pronounced to have died, saving the part where it had germinated, and this living remnant of the former tree was somewhere about nine inches in breadth at the top, gradually widening to two feet as it approached the ground. From this alone the new bud received life and support, to make another tree in times to come. It went prosperously on from year to year, producing vigorous shoots and branches till the year 1810, when, on my return from the West Indies, I took it under my particular care, seeing that it required considerable attention.

Having ordered an adze, suitable in size and shape to the work which it had to perform, I began at the top of the bole, just opposite to the new vegetation ; and having cut out large pieces of the dead wood, I rounded off what remained, so that the new wood and bark might have an uninterrupted progress over it. Whenever I returned from abroad (which was about once in four years) I went, adze in hand, to the Walnut-tree, and cut out more of the useless and projecting former wood. The luxuriance of the new tree, rising from one single original bud, was truly astonishing. Its parts at the top of the bole closed in and united ; and in course of time they became so perfect, that no traces remained to show that a former head had ever been taken off. In the meantime, renovation from above to below proceeded steadily, every year producing a fresh supply of wood and bark. When at home I was perpetually hewing out little pieces of the ancient tree.

For many years a duck, every season, had her nest on the ground inside of the bole. But now the closing parts of the new tree prohibit her access.

In ten or twelve years more, the present deficiency will be entirely filled ud by the renovating aid of Nature ; and when this shall have taken place the tree will measure eight feet in circumference at one foot from the ground. It regularly produces and ripens an abundant crop of nuts when the season is favorable. The whole of the new bark is easily distinguished by its comparatively smooth texture, whilst the original portion, which kept alive and nourished the new bud, is very rough and scaly, bearing evident marks of extreme old age. This year I intend to place a stone in the remaining cavity, with the year of our Lord 1859 cut on it.

The day will come when this stone, and all insects which have taken up their quarters in the bole, will be hermetically sealed, as it were, by the union of the new wood and bark. They will remain imprisoned in their holes, and there they must die, as they can never make their way back again to daylight ; nor will ever any daring Scolytus attempt a passage through the new and healthy wood in order to reach the old, which still remains in the centre of the tree ; and which old wood will remain there untasted by insects and undisturbed, until some hurricane or mandate of a future proprietor shall lay this tree level with the ground on which it now stands in renovated youth and beauty.—*Charles Waterton, Walton Hall.*

JASMINUM NUDIFLORUM.

This out-door, winter-blooming plant makes a sensation wherever it is introduced. No garden should be without it. It was introduced from Nankin, only so late as 1844 through Mr. Fortune. It is a shrub with angular deep green trailing branches. Its leaves are shining deep green, and each consists of three sessile leaflets of an ovate form, which fall off early in the autumn, and are succeeded by large yellow scentless flowers, which grow singly from the buds formed in the axils of the leaves which have previously dropped. It was considered at the time of its introduction that it would be an excellent addition to the greenhouse, by reason of its being a free winter bloomer, and continuing in flower for a length of time : and so it has proved, for plants growing in pots, and trained either with long stems and pendent branches, or in pyramidal form, have for years been objects of attraction in many gardens—nor is its beauty less conspicuous when allowed a more extensive range in the conservatory, with its roots growing in the free soil. It is, however, as an open-air plant that we would direct attention to its merits. On the face of a bleak hill, whether as growing in the common garden soil, trained on a trellis in front of the mansion, or in that part of a colonnade with a considerable roof protection, or rambling at will, the effect produced has been of the most charming and beautiful kind ; the flowers, too, have been most useful in bouquets and in the adornment of epergnes, vases, &c. ; the large bright yellow flowers contrast admirably with Camelias, Hyacinths, Primulas, and such like, and to these they add a peculiar grace when the stems and flowers are allowed to protrude outwards. The time is not distant, when not only every garden, but the sunny side of every cottage, will be enlivened and beautified, during the dull months of winter, with the golden flowers of this charming plant. S.

PINUS STROBUS PENDULA.

This variety was taken out of a bed where the seed had been planted seven years ago; it has the character of a weeping Pinus Strobus, and was raised by Mr. Heimburg, Vice-President of the Horticultural Society in Mainz, who is entitled to the thanks of all lovers of weeping trees, for having increased their number by such a graceful specimen.

How frequently are such discoveries lost or unnoticed by careless observers, which for centuries may not be again produced. We are therefore indebted to Mr. Heimburg for having brought this rarity to notice, and for introducing it to our collections.—*Deutsches Magazin, Stuttgard.*

AN HOUR IN THE VINEYARD.

BY JUDGE JOHN S. REID, CONNERSVILLE, INDIANA.

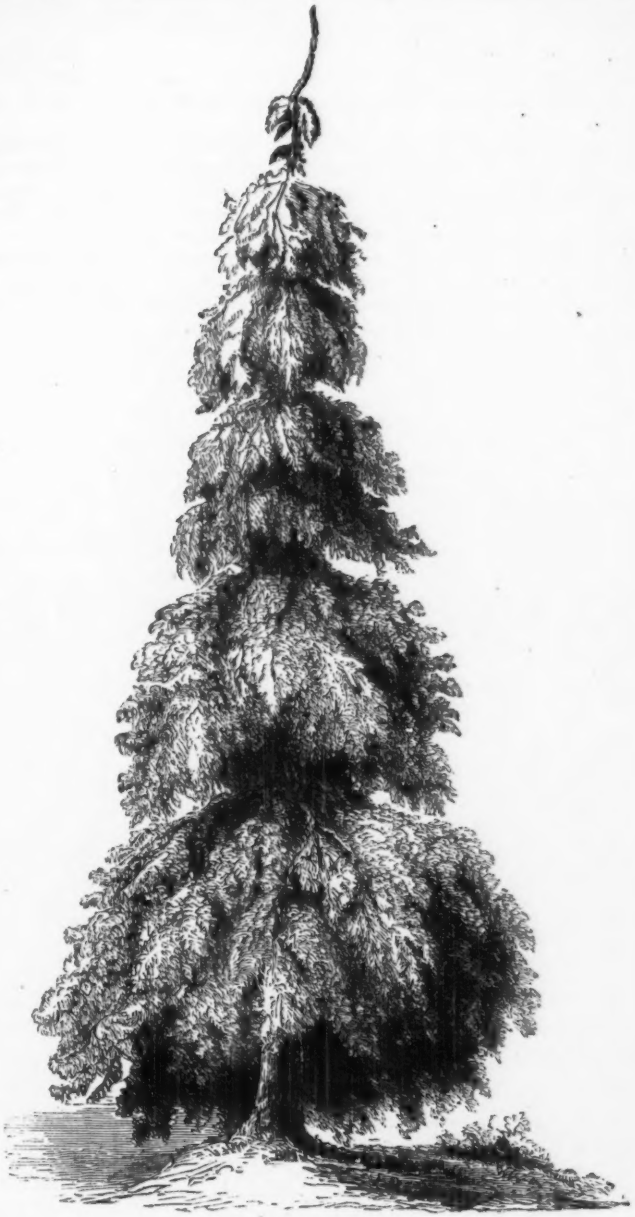
Spring has come, with its birds and blossoms. The wild flowers and the peach-bloom are scenting the air with their perfume; and the song of the blue-bird is heard in the grove: the long winter is past, and the work of the Vine-dresser has already begun.

Owning a small vineyard on the west bank of the "White Water," containing about 2000 vines, chiefly Catawba, a variety of the Vitis labrusca, or common Fox Grape,—and having some knowledge and experience of the mode of cultivating this luscious fruit, as well as of the process of making the Wine, I have made free to send for publication my present remarks, on the mode and manner of cultivating the Vine in this part of Indiana.

Having become satisfied that the German mode of pruning or cutting down the old canes, to one single cane and spur, was not suitable to the nature and habits of our native varieties; for the purpose of testing whether long or short pruning, and fall or spring was the best time to prune the vine, last fall I pruned about one half of the vineyard to two canes or bows, leaving two spurs for next season's wood, whilst the other half I left until this spring, when it was pruned in the same manner; and I have now finished the operation including the pruning, staking, bowing and tying, and the vines are ready for the development of the young buds, many of which are considerably swelled, and putting forth their young leaflets to the Sun.

The vines were planted about four feet apart each way; are eight years old, having fruited four times within this term of time; and as yet, I have perceived no difference between those pruned in the fall and spring, both being equally healthy. I intend allowing them to grow freely, without cutting back the top, so that they may form a crown or coronal to cover the bloom and fruit from the rain and sun. Last season the excessive rain of early summer washed off and destroyed more than half the blossoms, and when the hot sun came out on the remainder, they became mildewed and dropped from the vine.

In the months of February and March, we prune, stake and tie,—in April we prepare the vineyard for hoeing,—in May the young buds have burst, and the young leaves with the tender blossoms are all out, and liable to the frosts of May. June comes, and the young leaves have gathered strength



PINUS STROBUS PENDULA.

and size, the fruit is forming on the vine, but the mildew is then considered dangerous, and the *rot* in July is lying back ready to destroy the last hope of the Vintage.

Being an "Amateur," to a great extent, I have been gathering around me many of the choicest varieties of the Fox species, and have planted in a favorable situation the Slips and Rootlets sent me by my friends, in order to test their qualities, as well as the productiveness of each when they mature their fruit; and now I have about fifty different varieties, running from the Vitis labrusca, or common Fox, to the Vitis Vinifera, or Wine Grape of Europe. I have also several seedlings of the Catawba, as well as some vines from seeds sent from Germany, that may fruit this year.

Some two years ago, I trenched and excavated a piece of ground, throwing out the cold yellow clay, and placing at the bottom old bones, filling up with a compost of stable manure, loam and sand, into which I planted the young vines; the result of which is now strong branching canes, running from 20 to 40 feet in length.

The Grey Fox, of which I have several varieties, is esteemed a most excellent grape, and worthy of special attention. A few of these are reported to me by those who have fruited them, as being little inferior to the Sweet Water, or Royal Muscatine.

My Diana, Rebecca, Concord and Herbemont, have done well this past season, and in another year I expect to have the pleasure (Deo volente) of sending you a box of choice bunches, to feast your viniferous friends.

Excuse this hasty scroll, and expect to hear from me again, when the blight of June, and rot of July have passed away, when I may report my further *experience*, and chat another hour in the Vineyard.

SALVIA PATENS.

This beautiful blue sage is seldom seen in flower gardens, for what reason we do not know. It grows freely and blooms abundantly, even in our hot summers, provided it has a deep rich soil to grow in.

The roots are somewhat similar to the roots of the Dahlia, and require to be treated in a similar manner,—lifted in the fall and preserved in a cool cellar, protected from frost. Salvia Patens Alba is a beautiful white flower; a bed of the above and the Scarlet Sage—Salvia Splendens—planted in circles of each color, forms an object in the flower garden of great interest and attraction.

WEEPING ASH.

The Weeping Ash has frequently a tendency to assume an irregular growth, partaking more of the upright than pendulous form. To preserve an entire drooping habit, cut down all upright growths, and never allow any to grow in future. The simplest method of effecting this is to cut out all the buds that form on the upper surface of the branches, preserving those only that point downwards. By attention to this for a few years, the labor of a few minutes each winter, a drooping habit will be secured. S.

FACTS IN GRAPE CULTURE.

BY JOHN B. EATON, BUFFALO, N. Y.

I DISCOVERED, with some surprise, Mr. Editor, upon opening your May number, that a remark of mine in a former communication under the above title has greatly disturbed the equanimity of Mr. Chorlton. Judging from the asperity with which he criticises me, he considers himself aggrieved in no small degree.

"Without any disrespect towards the above-named gentleman," I may be allowed to say, that the acidity of his remarks seems to me quite unnecessary, and entirely uncalled for by anything in my article, which was written without the slightest intention of giving him offence, or of disparaging his treatise.

With his principles and practice in general, I am by no means at variance, and require none of the "testimony" which he offers to adduce, to convince me of their excellence and general applicability; as regards this particular locality, however, where the temperature occasionally falls as low as ten to twenty degrees below zero, I saw no impropriety in dissenting from Mr. Chorlton's dictum upon the point in question, innocently enough supposing that an amateur might be permitted to express his views and opinions, even if they *did* chance to conflict with those of such an unimpeachable authority.

I see nothing in my communication to which Mr. Chorlton should take exceptions, unless he desires and expects that his directions should be considered infallible, and equally suited to every climate. I do not understand that he claims this—in fact, he admits that they may require "slight modification." Now, a "modification" of his rules respecting ventilation, is precisely what I have practiced, and found to succeed well.

As Mr. Chorlton "would like to know how" I arrived at the conclusion that he "ever advocated a short allowance of air until late in the season," I will refer him to his treatise. At page 49, he says: "Do not give any bottom air at any time, until the fruit shows for color;" and at page 65: "As the grapes continue to color, admit more air in clear days; open the lower ventilators a little at first, gradually increasing till a free current of fresh air is obtained."

I consider these passages sufficiently explicit. If I *am* under "a slight mistake," as is intimated, in understanding them to mean that Mr. Chorlton allows *top ventilation only*, until his fruit is partially colored, then it must be confessed that their real meaning is most admirably disguised.

Respecting "the details of practice," which Mr. Chorlton requests me to furnish, you would probably say, Mr. Editor, that your space would not permit the insertion of a diary of my vinery, had I kept one, which I have not. I am not sufficiently interested in the "relative vigor" of my own and my neighbors' vines, to institute a critical comparison on that point, nor do I purpose exploring my friends' borders, in order to ascertain whether their roots "are or are not in a healthy state;" I will, however, state in brief, that my vinery is a curvilinear lean-to house, 13 by 35 feet in area, fronting a little east of south. The front sashes, six in number, all open out, and there are two large ventilators in the back wall, near the top, equal in their aggregate length to nearly two-thirds that of the house. It has no protec-

tion from the south-west winds—generally our coldest and most violent ones—except several apple-trees standing at some distance.

I find it more difficult to keep the temperature sufficiently low "at the beginning of the season" than later, when the foliage has shaded the house. For instance—to-day, (May 4th,) at noon, the thermometer indicated 92° with four of the lower ventilators, both the upper ones, and the door, all open. Can Mr. Chorlton venture to guess where the mercury would have stood had the upper ventilators only, been open? (It is of course understood that I am speaking of bright, warm days. In cool, and cloudy weather, when "under currents of cold air," which annoy Mr. Chorlton so much, would be prejudicial, it is obvious that less ventilation is required.)

After a careful perusal of Mr. Chorlton's article and my own, I do not see that he has disproved my statements, or given me any reason to change my views. I stated a fact which had come to my knowledge—that "some of my neighbors" had had their wood winter-killed, while mine was not—(I scarcely think that my "assertion" will be denied by the gentlemen alluded to). Their vines were protected, of course—so were mine;—I have observed their wood just coloring, while mine was in an advanced stage of ripeness—my house had received free ventilation from the bottom, and theirs, as I understood, very little. Hence my conclusions.

Mr. Chorlton seems to imply that I have advanced several points, which he will find, by referring to my article, to have been gratuitously assumed by himself, as emanating from me. I have not denied that his work is one of great excellence, nor, that by following its instructions, canes of "1½ to 1¾ inch in diameter have been perfectly ripened" in other places. Nor that "the vitis vinifera is so constituted as to require a long, steady, and warm temperature to produce maturity," notwithstanding "all Mr. Eaton or any other cultivator may say to the contrary." (If Mr. C. will inform me *when* or *where I* ever said "anything to the contrary" of that propostion, he will greatly oblige me.)

I have never claimed that I had "made my vines more than usually hardy, without reference to any man's advice or method," or asserted that my neighbors' *were* "below my excellence." I admit having had the vanity to speak of having produced some fine Muscats, but did *not* mention that I was assured by cultivators who came to see them, that they were the best specimens which had been produced here; my own opinion was that there were others equally good.

Mr. Chorlton has evidently worked himself into an unamiable frame of mind. If he has been in this unpleasant state since the appearance of my article in February last, I can only offer my regret at having been the unintentional cause of it; and I hope that after he has more calmly considered the subject, he will have the candor to admit that he has been somewhat hasty in his criticism.

EDITORS TABLE.

To Contributors and Exchanges, &c., &c.

Communications, Letters, Catalogues, Periodicals, &c., &c., intended for the perusal of the Editor, should be uniformly directed to the HORTICULTURIST, *Germantown,* (*Philadelphia,*) *Pa.* Packages by Express, &c., should be directed to the Editor, as above, by name ; they will thus reach him almost beyond a doubt.

THE disasters to the farmer and gardener of the past month have been most distressing. A terrible gale in Iowa and Illinois has done much damage to life and property, and confirms fears respecting that region that we hope may have no foundation. The middle States were visited on the night of the 4th of June by a heavy frost, such as has been of rare occurrence. Injury was done to wheat in some instances, and gardens have suffered severely. In Rochester, Mr. Barry informs us, he picked up a piece of ice a foot long and as thick as a dollar. In Ohio much injury was sustained. Vessels arriving soon afterwards reported seeing numerous icebergs. These discouraging and somewhat exaggerated circumstances, and a huge export of specie, made an impression on the public mind almost amounting to melancholy, but the material prosperity of the country is excellent, and we see no cause for continued discouragement.

STRAWBERRIES have been abundant and cheap the present season, and our friends have sent specimens in bountiful numbers. Mr. John Saul, of Washington, shows what may be done in that climate by forwarding very superior Vicomtesse Hericart de Thury, to which we must say *magnificent*, and Compte de Flandre, equally large and most delicious. The latter is a hardy variety, passing the hardest winters of Washington without injury, and establishing its reputation in every point requisite, the burning suns of summer doing no injury to the foliage. As a cropper it has proved excellent, giving fruit of good size, clear, bright color, very solid, and of exquisite flavor. It will become one of the most popular of strawberries.

Kitley's Goliath succeeds better near Washington than any other large strawberry of its class ; it is very hardy, not inclined to burn in summer, has invariably good crops ; its great size and fine flavor should recommend it in an especial manner. Ground for this variety should be trenched, very much enriched, and the plants at least three feet apart each way. Well does it repay good culture.

Trollope's Victoria, grown by Mr. Cammack, of Washington, has been fine this season, but we do not think it equal to those named above, which have been grown profitably for market, and are especially valuable to amateurs also.

Mr. David Miller, Jr., near Carlile, Penn., and Mr. Samuel Miller, of Lebanon, have kindly furnished a great variety for inspection. Mr. Joseph Lennig, of Germantown, Pa., has a variety much resembling the Bicton Pine, which has apparently originated among some Albany Seedlings, but smaller than the Bicton. From these specimens and our own, we shall have the pleasure of presenting our readers with figured plates in due season.

An amateur friend on the North River, who knows what he is about, says, "I am just now fully occupied tasting strawberries, which so far run as annexed :

"Leopold, very large and fine: Hooker, ditto; Vicomptesse Hericart de Thury, medium size, very high flavor; Marquis de la Tour de Malesbury, large and good; Cuthill's Prince of Wales, large and fine; Victoria, superb size and flavor; Fillbasket, large—not very high flavored; Seedling Eliza, large and pretty good; Ajax, grand; Athlete, large and very superior;" this we can confirm by our own experience.

A SUGGESTION TO BUILDERS.—Cleanliness and freedom from insect annoyance will be produced by building kitchen walls solely of bricks, and painting their surface. No washboard is needed, and thus a sweet, clean, and handsome kitchen is produced, at less cost, too, than by employing plaster and "roughing off." We have seen an excellent specimen, giving great satisfaction both to the cook and her employer.

WEEPING HOLLY.—The English *Cottage Gardener* speaks of a true Weeping Holly, which "weeps" just as much as the Weeping Ash—sweeping the ground with wreaths of coral—and adds, that no plant known surpasses it. Have we it in America?

GRAPE BORDERS.—Persons about to make new borders, should take into consideration their durability above all things, and provide against excessively wet periods that do so much damage. It is very easy to make borders which shall produce astonishing grapes, whilst the materials are not too much decayed; but they soon decline when a general decomposition of matter takes place.

Now, there is nothing in loam that changes materially, but the mere grass and its roots; but these are so divided amongst the mass, that, although it be decaying organic matter, there is no bulk of humus, or black residue, in one portion. It is doubtless the introducing inordinate quantities of organic matter, whether animal or vegetable, that ultimately produces that condition in the borders which old gardeners call "puttied"—a condition in which air cannot enter, nor water pass. What remains under such conditions, but for the originally pampered roots—once like sponges—to go gradually to destruction? How different are surface dressings, the timely application of liquid manure, &c.

"HORTUS LINDENIANUS for April, 1859, Part I, (Brussels, Huyez), is a new periodical in 8vo, illustrated with colored figures, entirely consecrated to the publication of the numerous fine novelties introduced to cultivation by the collectors of M. Linden, of Brussels, the Veitch of Belgium. Each plate is accompanied by horticultural information and botanical characters; the former by Mr. Linden himself, the latter by (we presume) Prof. Planchon, than whom few are more capable of such a task. Since none but handsome garden plants will be introduced, this will undoubtedly prove a work extremely acceptable to all lovers of fine new flowers. Let us add that the plates, which are extremely well executed, are also useful studies for young artists. The first number contains Arachnothrix rosea, Begonia amabilis, argentea, and Victoria, Beloperone violacea, Centradenia grandifolia, Cuphea ocymoides, and Lindenia rivalis."

FLORE DES SERRES, Nos. 25 and 26, contain, in addition to much good miscellaneous matter, original figures of nine new varieties of Achimenes, Nolana paradoxa violacea, Camellia Bonomiana, more of the huge Heddewigian Indian Pinks, the very handsome hardy Azalea van Houttei fl. pl., the two superb Double Peaches sent out by Mr. Glendinning under the names of camelliæflora and dianthiflora, and three Azaleas indica, each white with red streaks, viz., Gloire de Belgique, Le Géant, and Etendard de Flandre.

CULTURE OF ACHIMENES.—Now that we have so many beautiful summer-flowering exotics for the decoration of conservatories and greenhouses, there is no excuse for turning these structures into lumber rooms during summer; for, although it is a season when flowers are abundant in the open air, there are many fine exotics that are too delicate to flourish unless protected. Of these the Archimenes are conspicuous, and afford sufficient variety in themselves to satisfy the most fastidious in floriculture. They are well adapted for those who wish to make the most of a greenhouse, growing rapidly in summer, requiring no care, and taking up no valu-

able space during winter. They are also easily propagated, and were it necessary so to increase them, almost every scale of the tuberous roots will make a plant. The tubers, however, increase sufficiently for ordinary purposes, and if allowed to remain entire produce stronger plants. The routine treatment they require is very simple; where the convenience of a hothouse can be secured they may be had to bloom in June, but they will succeed well, although somewhat late in blooming, even if brought forward in a frame, or in the greenhouse. Very fine plants are produced by placing single tubers in small pots, growing them in a warm house, and shifting into larger pots as they require, stopping or pinching the branches, and thus inducing a spreading, stocky plant; but an equally successful mode is to deposit six or eight of the tubers in a pot, allowing them to grow into a large cluster. This method is especially adapted for such sorts as Longiflora, Longiflora alba, Coccinnea, Rosea, and those of similar growth. Stronger growing kinds, of which Grandiflora and Pedunculata may be taken as examples, should not be planted so thickly; three plants in an eight-inch pot will be sufficient for these, and by stopping the points a very large mass may be obtained, although the stopping of the points will render them later in flowering.

The soil for them should be of a light and porous nature. The fibrous portions of rotted sod, mixed with leaf-mould and sand, will be very suitable; charcoal dust is a good material for mixing with the soil if destitute of fibre; as they require liberal watering at certain seasons, a free transmitting soil and thorough drainage must be provided.

In their young state they should not be kept very wet, but as they come into flower, plenty of water will be necessary, and a shaded, moist atmosphere will be inducive to their rapid growth; shading from sun will extend their flowering very materially.

When the flowers fade and the foliage shows symptoms of maturity, let the watering be gradually abridged; the tubers will ripen more perfectly if the plants are placed out in the open air under a glass cover, however, to protect from rains, and they will keep well by laying the pots on their sides under the staging in the greenhouse. This simple treatment ensures me a great display of flowers, and keeps the greenhouse a "thing of beauty" all the summer.

AMATEUR, N. Y.

MUSIC AND NATURE.—Some of our lady readers may possibly think from the opening pages of this number that we there preach a crusade against all music. We do not wish to be so understood, for in its place none esteem it more highly. It is when it usurps the study of nature, and becomes a sole accomplishment that we condemn. And on this topic of education the annexed truths will be appropriately quoted:

"The whole force of education, until very lately, has been directed in every possible way to the destruction of the love of nature. The only knowledge that is considered necessary among us is that of words, and, next after it, of the abstract sciences; while every liking shown by children for simple natural history has been either violently checked, (if it took an inconvenient form for the housemaids,) or else scrupulously limited to hours of play: so that it has really been impossible for any child earnestly to study the works of God but against its conscience; and the love of nature has become inherently the characteristic of truants and idlers. While also the art of drawing, which is of more real importance to the human race than that of writing (because people can hardly draw anything without being of some use both to themselves and others, and can hardly write anything without wasting their own time and that of others,)—this art of drawing, I say, which on plain and stern system should be taught to every child, just as writing is,—has been so neglected and abused, that there is not one man in a thousand, even of its professed teaching, who knows its first principles," &c.

The effect of ignoring nature in education is happily expressed by the same author in another place:

"The main mischief of it is, that it leaves the greater number of men without the natural food which God intended for their intellects. For one man that is fitted for the study of words,

fifty are fitted for the study of things, and were intended to have a perpetual, simple, and religious delight in watching the processes, or admiring the creatures of the natural universe. Deprived of this source of pleasure, nothing is left to them but ambition or dissipation: and the vices of the upper classes of Europe are, I believe, chiefly to be attributed to this single cause."

THE EVERLASTING PEA (Lathyrus latifolius), is a climbing plant of much usefulness in covering up unsightly objects, or as a screen; when in full flower it is a charming plant. It dies down in the fall similar to the hop vine, but the roots are quite hardy, and for covering an arbor it makes a good variety. We have seen a pretty effect produced on arbors where the roof is covered with grape-vines, by pruning the latter so as to confine the foliage to the top, and decorating the sides with a variety of summer climbing plants, as the so-called Australian ivy,—a beautiful foliage,—Cobea scandens, Passion Flowers, Lophospermums, Maurandias, Solanum jasminoides, Clematis, Ipomeas, &c. A variety of foliage and flowers can thus be obtained without detracting from the density of shade which the grape-vine ensures.

CATALOGUES, &C., RECEIVED.—Minnie Hermon; a Tale of the Times. By Thurlow W. Brown. A Temperance tale. C. M. Saxton, New York.

Farm Drainage. By Henry F. French. New York: A. O. Moore. *The* book on the subject—able, correct, and philosophical.

Wall Street to Cashmere. By John B. Ireland. New York: S. A. Rollo & Co. A very large and well illustrated octavo; not yet perused.

Hints to Horse-keepers. By the late Henry William Herbert (Frank Forrester). New York: A. O. Moore & Co. The illustrations are excellent, and we think we recognize the pencil of the publisher in some of them. This work will be a standard, and should be found in the hands of all lovers of the horse, or of the manly and womanly exercise of riding.

Descriptive Catalogue for 1858–9 of Fruit and Ornamental Trees, Shrubs, Vines, &c., for sale by James Edgerton, Sugar Grove Nurseries, Barnesville, Ohio.

Ceremonies attending the dedication of Vale Cemetery, Schenectady, with the By-Laws, &c., of the Association. This is a highly interesting pamphlet. The Rev. Julius H. Seelye made an oration of great beauty and interest. These cemeteries are public teachers, if properly cared for, in matters of neatness and in planting. Trees placed in them have a chance of permanency, and the selection of them is of great importance. The best, the most beautiful, the fragrant, and those of historical interest, must not be overlooked. Without care, cemeteries had better not be established.

ANSWERS TO CORRESPONDENTS.

JAMES TRUITT asks some questions to which we reply:—

1st. By "Wigh Willow," J. T. probably means *Willow Twig* apple, a full description of which he will find on page 204 of Downing's Fruits and Fruit Trees of America, Revised Ed.

2d. "Waldeaur." We never heard of the fruit. It is not mentioned in Downing: we have not found a nurseryman who ever heard of it.

3d. "Empress" plum he purchased from an agent of "Frost & Co." There is no such plum that we have seen mentioned in Frost & Co.'s catalogue; nor in Hooker & Co.'s; nor in Ellwanger & Barry's; nor in Downing's Fruits.

4th. "Ambrosia" Apricot and "Early French" Apricot J. T. says he purchased from an agent of Moulson's Nurseries: he had better inquire of Moulson as to the "origin, quality and time of ripening," for although named in his catalogue, he gives no description, and even the names are not mentioned in the catalogues of our other best nurserymen; nor in Downing; nor in Thomas' Fruit Culture.

There are always some persons who are wanting to buy some sort of tree or vine that nobody else possesses or ever heard of. Such persons will always find plenty of self-styled tree agents

who are willing to gratify the whim, and to sell to them the most singularly named trees and plants. We are sure that the nurserymen, whom these agents *say* are their employers, do not know of any such sales, and they would not countenance any such imposition.

The reputation of the trade suffers very much by the swindles of self-constituted tree-agents; and the more reliable the nurserymen, the more apt these fellows are to pretend to be their agents. Messrs. Ellwanger & Barry, Messrs. Frost & Co., and other leading firms are compelled to use the greatest precautions to guard the public from imposition. A fellow in St. Lawrence county, N. Y., this spring sold large quantities of grape-vines by pretending to be the agent of Bissell & Salter of Rochester, and using their grape catalogue. The fact was that he never bought a single vine from them, and they never sent him or any other agent to St. Lawrence or any other county. Now are these gentlemen to blame if those who have bought that itinerant's vines find that they have been swindled? We repeat it: buyers cannot be too careful that their purchases come from reliable nurserymen and through reliable hands.

There is not a more honorable or useful occupation than that of disseminating throughout the whole country the valuable plants and fruits which have originated in any one section, and it is none the less a noble trade because rouges *pretend* to be regularly employed when they are only damaging *good* nurserymen and swindling the public.

EDITOR OF THE HORTICULTURIST—DEAR SIR:—Having between four and five acres of lawn which I am desirous to keep in the best order at the least expense, I beg to solicit your opinion of the merits of the lawn-mowers which I frequently see alluded too. My lawn is tolerably smooth, but the grass is thin. It has been seeded down for three years, but does not thicken or cover the ground to meet my expectations. The great trouble with me has been to get it cut just when it required it, as I am satisfied that allowing the grass to grow long before being cut is very injurious to the roots. Now I wish to learn whether or not these mowers will act upon an undulating surface? can they be used to advantage near trees and shrubs? in short, would it be advisable for me to procure one for the quantity of ground to be cut? C. E.

Ans.—We would advise you by all means to procure a lawn-mowing machine. When their worth is once properly known they will revolutionize our lawns. We are convinced that by their use we may vastly improve, while lessening the expense of keeping a thick, close lawn. The machine will operate although the grading may not be of the smoothest, so that there are no sudden depressions or small inequalities of surface; but the more level the ground the more perfectly will it operate. One great advantage it possesses, and one that we think important, especially on lawns recently laid down, is, that it will cut smooth and level without the lawn being actually "closely shaven." The grass can thus be cut so as to present the appearance of close cutting, at the same time it is sufficiently long to shade the ground, and hide any bare spots. With ordinary care they can be used quite close up to trees and shrubs, but a scythe will be requisite to clean up small angles and around shrubbery, where it is too closely planted for the mower to operate with advantage. They are simple in construction and not liable to be easily broken or put out of order.

F. W. C. asks, "Is our present rather artificial mode of propagating the apple the best?" In England the seedling stock is grafted at about five feet from the ground, and the tree is five years old before sold; price half a crown (about 60 cts.) apiece.

Our nurserymen have adopted the present mode instead of the English practice, because 1st, The trees are ready for sale in 4 years instead of 5; because 2d, The farmers are not willing to pay a remunerating price for the older trees: they will have cheap trees, and nurserymen conform the supply to the demand; and 3d, The difference in growth and durability was not enough to be very immediately perceptible, and people readily persuaded themselves that there was no difference at all.

In our present mode there is a great difference in the manner in which scions of the several

varieties unite with roots, some of them even forming a *callus* at the lower part of the scion, whence spring forth roots in abundance; consequently, good nurserymen are attentive as to which varieties receive especial care in the grafting, and which need so little as almost to take care of themselves. The roots in all cases should be those of seedling stocks; but as to cutting a straight, healthy, vigorous root into two pieces or not, there cannot be any difference, because the moment a perfect junction is effected between the root and scion the root is a part of the scion as it ever was of the seedling.

The prejudice against root-grafted trees in the west began when the demand (above referred to) compelled nurserymen to graft their scions upon any pieces of old roots which they could obtain. Such roots were neither healthy nor vigorous, the junction was not perfect, the new root fibres not numerous, and the trees were short-lived. As that celebrated fruit-grower, J. J. Thomas, says, "opinions are changing in this matter," and we think that it is because our reliable nurserymen are cautious never to use any but healthy seedling roots in grafting.

If F. W. C. wishes a reform in this matter,—so far as he is concerned, let him buy apple trees grown in the English style. To be sure, he cannot get them at the price which farmers insist upon paying for their trees; but if farmers will have cheap trees the nurserymen will supply the demand. It is one of the laws of trade that sooner or later the supply will be pretty exactly commensurate to the demand.

Gossip.

BOTTLED LIGHT.—Niépce St. Victor, pursuing his researches, finds that light will retain its action for six months; that is, you may seal up sunshine in a tube in July, and in December take a photograph therewith; but only one, for a single impression exhausts it. Again, if garden mould be taken from a depth beneath the surface, and carried into a dark room, no photographic result is produced; but if it be mould from the surface, on which the sun has been shining, then the sensitive paper becomes darkened. Here we see a striking instance of the energy of light; still active though shut out from the sun; and while science and art may find rich promise therein, we think that facts will be elicited exhibiting yet more clearly than at present the important function of light upon health.

LOCUSTS.—The Swiss naturalists are earnestly discussing the subject of the swarms of locusts which ravaged the valley of the Rhone in the Lower Valais last summer; swarms so numerous that they were hours passing a given spot, and hid the sun as a cloud. The inhabitants of the district are in dread lest the coming spring should hatch the eggs which now fill the ground all over many leagues; and systematic operations to dig them out, and to watch for and destroy the larvæ, are recommended as the only means of preventing a worse visitation next summer. In one of the locust seasons which sometimes afflict the south of France, the authorities of Marseilles paid 20,000 francs to destroyers of the pest, at the rate of twopence halfpenny a pound for eggs and locusts.

THE KIDDEAN SYSTEM OF PROPAGATION is placing cuttings in a vial half full of water and half with sand, so as to keep the cuttings upright, for rooting Oleanders, and such like. If you fill anything with water, and as much sand as will keep up the cuttings, and give them 70° of heat, they will all root, and astonish you with the ease with which they will do it in so short a time, and with hardly any trouble.

THE petty annoyance or dishonest practice, whichever you choose to call it, of driving cattle into a neighboring proprietor's field, is far from being an uncommon one. A remedy which has

never been known to fail, is here put on record. If the trespassing animals be cows, wait till afternoon: then have them well milked, and send them home. If horses, let them instantly be put in carts, and sent off ten miles to fetch lime. A sudden strength will thenceforward invest your fences; and from having been so open that no efforts on the part of your neighbors could keep their cattle from straying into your fields, you will find them all at once impervious. —*Fraser's Magazine.*

HUNGARIAN GRASS.—The *Boston Cultivator* says of the Hungarian grass: "Hon. A. B. Dickinson writes to the *Country Gentleman*, that the Hungarian grass of *last* year, and the Honey-blade grass of *this* year, 'is nothing more than what *millet* was forty years ago.' That's so. Thus fade our visions."

THE MOUNTAIN SEEDLING GOOSEBERRY.—Mr. Wm. Bacon, of Richmond, Mass., communicates the following to the *Wisconsin Farmer*: "This is a variety, brought into notice within a few years past, by Philemon Stewart, of the United Society, at New Lebanon, N. Y., and for the time it has been out it has met with a liberal distribution.

"Its qualities are, that the bush is a rampant grower, (we have seen sprouts three and a half feet long, the growth of a summer), a monstrous bearer, perfectly hardy, and the large fruit never mildews. In quality the fruit is surpassed by some of the best English varieties. It is a very desirable article for the garden."

WORTHY OF ENCOURAGEMENT.—A somewhat novel yet benevolent project, for the amelioration of the condition of poor orphan girls, is now under consideration. It is proposed by Mrs. T. W. Phelps, of Irving Place, who has generously donated an extensive and suitable plot of ground near New York for the purpose—to establish a horticultural school, where young girls may learn such light and healthful branches of industry as are embraced in the growing and canning of all the finer fruits and vegetables, the care of hothouses, the breeding of birds, the rearing of fowls, etc. Prosperity attend the attempt to teach young ladies something useful!

SODA ASH is considered one of the most valuable agents, when dissolved and diluted, that can be used in the nourishment of plants. Four pounds and a half of ashes, with three pints of quicklime, placed in three gallons of hot water, stirred occasionally, and allowed to remain for three or four days, will make, when diluted with rain water, 192 gallons of manure, that may be applied with the greatest confidence to kitchen-garden crops, and soft-wooded flowering plants in the pleasure garden. It is suitable for light, sandy soils, and its effects are steady, certain, and lasting; but in using it for vegetables it will be advisable not to apply it to seed, nor until the seedling plants have expanded their second leaf. Then it may be given to them in the evening, after the sun is hid behind the hills, or when he is overcast, and the day is likely to continue so throughout, or when rain is falling from the clouds; then the watering-pot may be taken, and the ground drenched with the liquid, so as to be likely to reach every fibre. This I practise two, and, in some cases, three times a week. It is, perhaps, one of the most suitable liquids that can be given to cauliflower, endive, and celery plants, as it does not, like those of a more stimulating nature, induce prematurely the elongation of the flower-stem; at the same time it leads the plants to the full development of their character, except in cases where the seed has not been of the right kind.

An experiment which was tried on the 12th of last July, upon the green fly, which had literally covered the plants of endive that formed a row across one of the beds in the kitchen garden, should be related. The plants were in a healthy condition but a few days previous to the fly being discovered upon them, but on the day mentioned above they looked sickly and dirty. Destruction to the whole of the plants appeared certain unless they could be divested of the destructive Liliputian army which was feeding upon their blood. Having proved the effects of soda ashes as an insect destroyer in one particular instance, I determined to try their qualities upon the fly, and, if possible, settle them with it, even should it be at the expense of

the plants. I therefore took eight gallons of soft water, and added soda ashes sufficient to make it six times stronger than that which is stated above, and in the evening took the watering-pot without the rose, and poured the whole of the liquid all over the tops of the plants; and, to my gratification, the following morning the plants were alive, and not a living fly upon them. They were syringed with clean water, and from that time until they were removed from the ground, they received no check in their growth. J. B.

"APPLES.—In no section of the United States have we seen finer apples, and they are mostly from seedlings originally planted by the Indians. Silas McDowell, of Franklin, in Macon Co., has devoted more than twenty years to the selection and grafting of those best native apples, and now he has an orchard of more than 600 apple-trees, which bear fruit equal if not superior to the best northern kinds. There is said to be a line or belt on the mountain sides, about three hundred feet above the adjoining plain or valley, and extending upwards several hundred feet, where fruit trees always bear, because the belt is free from frost. If this be true,—and we believe its truth has been pretty well tested by experiment,—the mountains of North Carolina might supply the South with an abundance of the choicest fruit, if the means of transportation were good.—*Mr. Buckley, in the Country Gentleman.*

"HUCKLEBERRIES.—The Carolina mountains have a great variety of huckleberries (Vaccinium and Gaylussacia) ripening in succession from July to September. When we first met with acres of those bushes, in September, covered with large delicious fruit, the temptation was so great that we partook rather freely, expecting to pay the penalty of over-indulgence, but were happily disappointed. Judging from the experience of others and our own on many occasions, those berries are remarkably healthy. Most of them were larger than any we ever saw at the South. The Vaccinium Constablei of Gray, which sometimes grows ten or fifteen feet high (on Shining Rock), was covered with ripe fruit as late as the middle of October. There are several species of the huckleberry which are worthy of cultivation. The common high blackberry (Rubus villosus) is often found in dense patches on and near the mountain tops, with its stems smooth, and destitute of prickles. This rule is constant. We do not remember to have met with an exception. The same species growing in the valleys has its stems armed with prickles."—*Ibid.*

A SMALL GARDEN, BUT LARGE ENOUGH.—Persons who have but a small garden should remember the reply of Hahnemann, the homœopathist: "It is but a narrow patch, but there is no end of its height."

UNION SPRINGS SHADE TREE ASSOCIATION.—The beauty of a village, as every person of taste is aware, does not depend on its showy buildings so much as on its trees. Any place properly ornamented with trees is handsome; without them the most costly architecture is bare and unattractive. The inhabitants of Union Springs, a thriving village on the banks of Cayuga Lake, resolving to profit by these truths, formed an association, with the following regulations in substance:—Each member pays an admission fee of one dollar, which is applied in procuring and setting out trees in such places as the owners are unable or unwilling to plant—any additional sum from a member is expended in planting trees, at cost, along his own grounds or where he may direct.

The admission fee of the association amounted in the first place to some forty or fifty dollars—a part of which was from day laborers to be expended in work. The executive committee, after exploring the adjacent country, found a fine natural nursery of maples and other native trees, which they secured at five dollars per hundred. They were dug *with the roots*, (the roots are commonly cut off in such cases), and several teams were despatched for them. Over six hundred trees have been thus procured at a small cost, and have been placed along the streets; and if half of them grow and flourish, they will increase the market value of the lots they adorn at least ten times the amount of the expenditure.

This may not be the best mode, in every particular, of accomplishing so desirable an object;

but it may furnish hints for an improved mode of proceeding in other places. It will be perceived that in all such cases, cattle must be excluded from the streets.—*Country Gentleman.*

Miscellanea.

THE ALOE.—Something remarkable is reported of the aloe: a gardener near Paris one day scalded both his feet; he was quite alone,—no one within call; and compelled thus to shift for himself, he plucked a large aloe leaf, split it in two, and applied the raw surfaces to his feet. Much to his surprise, the pain at once ceased, and the leaf became of a violet color; while the next day no traces of the scald remained except a dark-blue stain. This curative property has been lately verified at the Museum at Paris, in a similar complete cure of a workman, whose whole back had been blistered by a rush of steam: and by Lemaire, professor of botany at Ghent, who cured the scalded arm of a cook in the same way. The aloe in question is the *Soecotrine*—that is, a native of Socotra, which, if desired, may be grown as an ornamental indoor plant, having a good leaf and flower. It is believed, however, that the aloe of the Cape of Good Hope would be equally efficacious.

SUGAR CANE.—When we ventured, in the face of the speculators in Sorghum seed, to ask what had become of the article in cultivation, we were called seriously to task. We had allusion to the original programme, which asserted that it was to supply the north with *sugar*. Soon it was reduced to molasses, and now doubters on that matter are increasing. H. Y., in the *Rural New Yorker*, says: "A few years since the production of *silk* was the popular hobby, and hardly any family 'with souls above buttons,' but what experimented in that mania, which was the universal topic of conversation and the trumpetings of the public prints: not a paper, daily or weekly, but what made this subject a constant theme, until silk worms and multicaulis ruined thousands. Where is the great speculation now?—gone to the tomb of the Capulets. There is great danger of a like result for the sugar cane. Its successful operation depends on so many contingencies—so foreign to the habits and abilities of farmers in general—requiring strong, well-made iron crushing rollers and evaporating pans, differing from anything in common use, that well-grounded fears may be indulged that this valuable addition to domestic comforts, and even as a profitable crop, will be abandoned and sink into the dark waters of neglect and forgetfulness. H. Y.

Abroad, we find in some cases that success still attends the cultivators of the sorgho—Chinese sugar-cane—in France." The plant yields there excellent sugar; a farina obtained from the seed makes good bread and chocolate; alcohol and an agreeable tonic wine are extracted from the stem and leaves, as well as certain dyes, of tints hitherto supposed to be peculiar to China; and the residue is convertible into paper. Truly, a most useful plant. We are glad to hear that it has been introduced into Australia, where, in the seasons of drought to which the colonies are liable, it is found eminently useful as food for cattle."

We observe that Dr. Sicard, of Marseilles, has formed an interesting collection of the products derived from the sorgho, the Chinese sugar-cane, which has been much talked of lately. The number, 423, is already surprisingly large, and comprises portions of the plant itself, with the spikes and seeds; various kinds of flour made by grinding the seeds, and mixing the meal with other kinds of flour; specimens of sorgho bread; of sugars of different qualities; of the juice; of beer, cider, vinegar, and brandy, all made from sorgho juice; sorghotic acid; various dyes, carmine, red, rose, yellow, lilac, slate color, and grey; besides other preparations. The doctor has, moreover, written and published two volumes concerning the sorgho, containing a description of the plant, and of the processes by which it is to be utilized.

A VARIETY OF CYPRESS.—From the starting point of what is called species to the last form which this may take, in order to constitute varieties, the limits which are extremely variable cannot be fixed; in truth, every day they are presented in such different varieties of the individual one from which they sprang, that if the origin was not known they would be taken, without doubt, for a peculiar species. There are, however, some genera whose species, always few, yield to little modification; there are others, on the contrary, which seem disposed to vary, to metamorphose themselves into the most diverse forms. We shall return to this subject in future articles, when we treat the different questions of genera, species, hybrids and varieties; just now we shall only discuss the one figured before us.

The *Cupressus fastigiata cereiformis:* Carrière, Cupressus Fernandii Calumnatus hortorum very remarkable for both its bearing and appearance, is so from its mode of vegetation; in its bearing it recalls the general form of the *Cupressus fastigiata*, from which it sprang, although it is perceptibly different; in its mode of growth it is separate from it, as well as from the other varieties, and forms a peculiar type—a sort of monstrosity which must remain permanent, since it is reproduced from seeds. The very singular character which constitutes and distinguishes clearly this variety, is the complete and constant abortion of all the branches and their transformation into twigs, small and growing so closely together as entirely to hide the stem; on either side as they lay compactly along this, the whole forms a very straight column, which gives to the plant a taper (cierge) like appearance, from whence comes the name Cereiformis. The specimen growing at the museum, and from which our picture is drawn, is 8 years old; it measures 11 feet and an inch in height, 8 inches in diameter, comprising stem and branches, a diameter which is preserved through nearly its entire length, except near the top, where it tapers and ends in a very small point. We are indebted to Mr. Ferrand, Horticulturist at Cognac, for it, the only owner of this form, which he procured about 1838. He owns specimens of different ages and strength, which all have the same character; that is to say, that instead of more or less strong branches, they have only twigs. This last peculiarity is not, as one might suppose, occasioned by a want of vigor, since some very vigorous specimens 40 feet high are only 2 feet in diameter, everything included, in which size the stem makes one-third, or 8 inches. There are seeds of this last which, when sown, have produced specimens of different ages owned by Mr. Ferrand, and which he now offers to the trade. The unusual form of this variety makes it indispensable in coniferous collections.

Let us add, to give as just as possible an idea of the Cupressus fastigiata cereiformis, that the plate before us is reduced to the 20th of its natural dimensions.—*Revue Horticole.*

THE ORCHARD HOUSE.—It would be almost impossible to find a lover of horticulture who would not derive pleasure and instruction from reading the work of Mr. Rivers on Orchard Houses, which we continue in the present number. The owner of the smallest garden

pit will find principles laid down which he can apply in practice. Our late extensive experience with heavy frost in June is also an argument for the orchard house, which it is well to remember. With such a shelter fruit will no longer be a "pursuit under difficulties."

Perhaps, after all, one of the greatest advantages to be derived from the Orchard House will be found in its conquest over the curculio. The fruit is set and quite forward before the pest makes his appearance from his winter quarters, and then the fruit is too robust to be injured.

Correspondence.

A Visit to the New York Central Park.—About twelve months ago I sent you some remarks upon the respective merits of the plans that were prepared for the laying out of the New York Central Park, and then stated that the one to which the first prize was awarded was the most appropriate, and well chosen. This decision of the Commissioners was disputed by some parties, and, like everything else of a public character, there was not a unanimous vote in its favor. The majority, however, seem to have thought it best, and it is now becoming a practical reality on the ground site; consequently, a report of progress may be interesting to some of your readers.

To the uninitiated and careless observer, the whole may appear a huge confusion of rock-blasting, hoisting, carting, breaking up and leveling, on to here a road and there another, without connections, excavating of immense hollows, and raising the earth so removed into mounds of meaningless shapes; but a careful examination reveals to the mind's eye the developing, or working out, of graceful and easy curves in the carriage drives, and the *Bridle* and pedestrian paths, with corresponding undulations of a *grand* and finished character on the more level portions, while the *picturesque* features show a series of varied and becoming composition. There is a great distinctness between these two opposite forms in landscape, and in the example before us they are kept separate from direct vision, while they blend into each other, as it were, imperceptibly, as we travel to other spots. This, when finished, will produce a happy and pleasing effect, relieve the visitor's mind from monotony or tire, and give scope for the free use of all grades of intellectual enjoyment. The natural surface is well adapted for producing variety of scenery and convenience, as it embraces the running brook and silent lake, the flowery dell and rounded hill, the hollow cave and craggy rock, the secluded valley and elevated height,—all of which seems to have been well studied by the artists, and it is well they have accepted the advantages. Whether or no the goal of this desirable consummation will be reached, remains yet to be seen; but it is at present in a fair state of progress, and if there is anything like patriotism in our city fathers, they will supply the needful until it becomes a fixed fact.

Commencing at the principal entrance, Fifty-ninth Street and Fifth Avenue, the grade is a large level space sufficient for the accommodation of carriages in any number, from which the main drive on the easterly side begins, and traverses in an easy winding course around the entire park, deviating from the boundary so as to give a pleasant drive of some nine miles, without danger from steep declivities, and intersected at different points, by which a shorter distance may be adopted if desirable. Besides this there is a Bridle road of about five miles, beginning at the aforesaid entrance, conducted on away towards the centre, and then along the westerly side to the northerly end at Haarlem Flats; and in connection with this it is proposed to have a space for equestrian feats. The walks for pedestrians will extend to about twenty miles, meandering and coursing all manner of ways, around rocky bluffs, down to the water edge, along level grades, leading to the most elevated spots, deep into the ravine, now approaching the most public haunts, and again receding into solitude—accompanied by the always comfortable and neutral tint of green grass, and here and there conducted through *intended* shades of umbra-

geous growth, where the *pic nic* may be enjoyed *ad libitum*, either upon the extensive open lawn or under the shelter of trees; and it is gratifying to know that the foot walks are mostly contiguous to, or are conducted across, these inviting spots, where the romps of innocent youth may meet with no restraint; and, also, they are so arranged that nothing but the grossest carelessness can lead to danger from passing carriages or horses. In fact this point seems to have been well studied, as at most of the intersections there are to be bridges of various construction, several of which are now finished, which will admit of all crossing and re-crossing without interference.

Excepting a necessary straight line along the eastern margin of the *Croton Lake*, which the designers had no control over, there is only one such in the park, and this is the MALL, or Promenade ground. As we look at the plan upon paper it certainly appears as the spoliation of a principle: on the ground, however, it is otherwise; and considering its connection with the nearly parallel drive, and being not far from the entrance, the disparity is not noticed unless by the prejudiced critic. Now if we take into consideration the manners of our society, it is reasonable to suppose that we must have, in a public establishment of this nature, a part for promenade and the display of person; and surely we cannot, in justice to all parties concerned, deprive our fair belles and gallant beaus of such a desirable advantage. Besides, we should think of the unrestricted freedom that a straight line one-fourth of a mile long, two hundred feet wide, composed of broad belts of grass turf and gravel, overtopped with our *National Elm*, will give to the elastic trip of the rising generation, and leave principles "for the nonce" to go for what they are worth.

On the westerly side of the south entrance is a large hollow intended for a pond, the sides being bounded by irregular rounded bluffs of blue stone which, when interspersed with shrubs, suitable trees, and walks around the margin of the water, will produce a bold and pleasing effect. Extending further to the north is the large play and parade ground, and further on commences an unevenness of surface which furnishes two skating ponds,—one of which is exclusively for ladies,—and an opportunity to bring into view one of the most beautifully picturesque scenes that the eye of a painter could desire. This part is nearly completed in walks and outline, and also partly planted. It is to be hoped, however, that what trees and shrubs are placed here are only for temporary convenience, for there is at present nothing but a huddled confusion. If a permanency is intended the whole ought to be put under the control of some more qualified superintendent, and the work commenced afresh. Do let us have some regard to good taste, suitableness of character and situation, and beauty of outline in this respect; for surely we need some examples of superior merit to train the minds of our people, that they may more generally become acquainted with ornamental planting. Whatever the intention in futurity may be, there is evidently a great lack of ability here, for, under any circumstances, a part must remain, and then there will be no corresponding effect in either outline, form, character of connecting subject, or suitableness to situation. At any rate, the placing of *Swedish Junipers* immediately under the drip of the *Sassafras* does not augur well for effect hereafter; neither does the confused proximity of such varying forms as *Silver Maple*, *Linden*, *Paulownia*, *Hornbeam*, and others quite as opposite in present contour, or, what will be still worse, future effect. A meditated contemplation and careful study ought to be devoted to this department, as in a great measure the splendor of, and gratification to be obtained from, the whole hereafter, will depend upon the present arrangement.

The Croton Reservoir and Lake, containing about 140 acres, are nearly in the centre of the grounds. The latter is not yet finished, but will when filled constitute a noble sheet of water. Beyond or north of these the draining is going on, and further improvements are commencing.

It is intended that there shall be four transverse roads for the accommodation of the city traffic; and as they are to be conducted below the general level, there is much blasting and removal of rock, and excavation of other material. Two of these are now being constructed, and will be a heavy expense before completion.

The southern half of the whole area (774 acres) is progressing very rapidly, a great length of the roads and walks finished, with the general outline fairly developing, and by the end of the present year we may expect to have secured to the public some 300 acres of pleasure grounds of the most beautiful and gratifying character. Yours, &c., WILLIAM CHORLTON.

DEFENCE OF THE PRAIRIES.—*My Dear Editor:*—You could not have visited the prairie country at a more unpropitious season, for a succession of heavy rains had submerged the country, and my own grounds being torn up for tree-planting, road-making, and the like, must have presented a forbidding appearance.

Still your partial eyes discovered, it seems, something to be pleased with, as you desire me "after reading the Horticulturist" to write "a defence of the prairies." From this I inferred that you designed throwing us upon the defensive, but in the absence of an attack, where is the occasion of a vindication?

My preference for the prairies may be accounted for in a *very few* words.

Mountains figure more pleasantly in the eye and on the canvas of the painter than profitably in the domain of the husbandman. This needs no argument. Dense forests have their advantages and their disadvantages, the latter greatly preponderating. One generation cut down the timber and die. The next, seized with the malady incident to newly-cleared land, root out the stumps and *shake* to death. The third generation only begin to profit by the labor of their ancestors, from whom, with the record of their hardships and physical ills, they inherit also an occasional *quaking*.

And now let us turn to the prairie and find its rich, deep loam *all ready for the plow*, and promising exhaustless fertility. This wealth of soil and the freedom from rugged hills, from rocks, from stumps and from trees, (except in occasional groves which furnish abundant fuel,) and from other impediments to easy and profitable agriculture, prove indisputably the admirable adaptation of our prairies to the wants of the husbandman. But to the lover of Nature the prairie has attractions, apart from its ready and abundant rewards to the industrious son of the soil.

As I write, an almost limitless expanse of prairie stretches out before me, bounding the vision only with the horizon. The undulations, the groves and creeks prevent monotony. The depth of soil favors the most luxuriant growth of grain, and grass, and flowers, and this vast plain is clad in verdure of such depth of tone and with bloom of such exquisite hues, that I am confident were you here to witness it, and to see the occasional groves in richest foliage, and vast flocks of grazing sheep and cattle diversifying the scene, you would agree with me in pronouncing it enchantingly beautiful.

But one of my men has come in to tell me that some thousands of feet of tile (for the lawn) and an underdrain mole machine (for general use on the farm) have arrived, and I must be out to look after them. I have been planting extensively, &c., &c. B., *Illinois*.

BOILING POTATOES.—Pick out your potatoes, so that the quantity you intend for dinner shall be as near of the same size as possible, and put into the pot with them sufficient water only to reach half, or a third of the way up them: they should never be covered with water. This is a most invaluable, although such a very simple receipt. I have had a square pot made for the potatoes; for a round pot, since they must not be piled one over the other, would not hold sufficient for any number of persons. In boiling potatoes for his pigs, which my informant did in a large copper boiler, he had observed that those uppermost, and partially out of the water, however small they might be, were invariably cracked and mealy, while those below were waxy. C. P. C.

WHITE FOX GRAPE.—A correspondent in the May number of the *Horticulturist*, page 246, supposes he has the white fox grape alluded to by Major Le Conte, in the Patent Office Report for 1857. Now, if the gentleman alluded to has the true White Fox grape, he will readily

know it from all others, by the thick, velvety, buff-colored down on the under side of the leaf, (which is white on the black variety), and the coarse, hairy down on the young twigs, which are red, tough, and very slender; and the berries, which are enormously large, and from three to seven on a bunch; wood very short-jointed,—say, two to five inches long. There is another variety with leaves dark buff on the under side, and purplish white berries, said to be equal to the white variety, but it does not seem to be so stout a grower, and has not yet fruited, but will doubtless do so next season, when I will send you a drawing of each of them.

The vines were found in Georgia, and were taken up and brought here a year ago, and are now well established. They are, no doubt, seedlings from the Black Fox grape, as they came up in the fields where that variety once grew. The fruit on the vine is at this time, five times as large as the Isabella and many other kinds growing side by side with it. I think it will prove of great value, both as a table and wine grape, throughout the United States, as the fruit is said never to rot, is an enormous and early bearer, and seems to be equally hardy with the black variety, which is found growing wild from the Gulf of Mexico to the northern lakes. I expect to conduct many experiments with this grape, by hybridizing it with the best foreign and native kinds, and will keep your readers apprised of my success.

Enclosed I send you a leaf of each variety, which are now about half grown, (taken from a young shoot), by which you will see they are entirely different from any other grape known.

Bloomingdale Nurseries, Cuddy-hunk, Miss. W. H. BURFORD, M. D.

NATIVE GRAPES.—The tourist to Lebanon Springs, New York, is of course familiar with the settlement of the United Society, two and a half miles south of that watering-place. They are familiar with the long high hill to be climbed in going from the latter to the former, so that we say, on reaching the settlement, that we are a good thousand feet above tide-water. The high bluffs of the Taconic, south and east, whose summits are far above them, tell of the seclusion of the earliest morning sun, on one hand, and break the sweet influence of the soft southern breezes on the other; while that valley, opening far to the north-west, shows conclusively that old Boreas can travel with telegraphic speed to vent his fury on the abrupt hill-side.

It was at this unpropitious locality that Philemon Stewart, a member of that enterprising Society, some twenty-five years ago, with the noble object of producing a palatable and hardy variety of grape, commenced their cultivation from the seed, and as the first fruit of this effort he was rewarded with the "Northern Muscadine"—a grape which is every year becoming better known and more popular among cultivators.

The excellencies of this grape, are, in the first place, its entire hardiness; for, as Mr. Stewart has lately informed us, he leaves the vine wholly unprotected in their severe exposure during our long, cold, and sometimes fluctuating (as to temperature) winters. Then, the grape has ripened well on his grounds for the last fifteen successive summers. It is a hardy grape, and ripens its fruit as far north as Detroit in Michigan, and Quebec in Canada. Amateurs pronounce it a good table grape, and the wine, the pure juice of the grape, made from it, of which Mr. Stewart shows several specimens, is beautifully flavored for the invalid, and sparkling. Its popularity as a grape worthy of general cultivation is increasing as it becomes better known, as the increasing demand for the vines fully affirms. But Mr. Stewart's ambition is not satisfied, nor do his labors rest here. He has now some fifteen hundred seedling vines under cultivation, from which it is no more than reasonable to suppose that some valuable varieties will originate. Indeed, some of these vines came into bearing last year, and several varieties, ripening from August through September, promise well. As the vines mature, the qualities of the fruit of these will probably improve.

Mr. Stewart is a philanthropist. His labors, watchfulness and care in grape-culture, have been arduous and unremitting, and Providence we have no doubt will give them success. What a blessing it will be to mankind if he brings out several new, hardy, and choice varieties, so that choice grapes may in due time overspread the poor man's cottage as well as the rich man's

arbor, and become the comfort and healthy luxury of all! God speed him and give him full success, for the labor in which he is engaged is a labor to bless mankind.

Yours truly, WILLIAM BACON.

Richmond, Mass., June 1, 1859.

[The Northern Muscadine is valued at the North for its ripening where most other grapes do not succeed. We are not prepared to recommend it where we can have better. Will some one favor us with a sample the coming season from a vine of some age?—ED.]

DOWNER'S PROLIFIC STRAWBERRY AGAIN.—It will doubtless be recollected by many, that some of us made out a report and description last year of a seedling strawberry raised by J. S. Downer, proprietor of Forest Nursery, near Elkton, Ky., which report was published in the *Horticulturist*, and also in several other papers.

At the request of the above-named gentleman, we have again met to repeat our examination of this fruit, and we are pleased to state that another season's examination has but confirmed us in the opinions expressed in our report of last year. We have this season had an opportunity of examining this strawberry under different modes of cultivation: some are grown upon ground which has been well prepared, and the runners have been kept off the plants; others are on ground which has not been manured, nor had any especial care taken with its preparation, and the vines have been permitted to run without restraint. In every instance Downer's Prolific Seedling is, to our satisfaction, *vastly* superior in productiveness, to all other varieties known here.

When we take into consideration the vigor and hardiness of the plant; its early maturity and long continued bearing; the size and flavor of the fruit, and above all its unparalleled productiveness; it is without a rival.

Some of the committee examined this stawberry at intervals from the 6th of May to the present time; they find it ten days in advance of any other variety in ripening. At the present date (May 26th) it is perfectly loaded with berries in the different stages of development, from the bloom to the ripe fruit.

We deem it unnecessary at present to give a further description of this strawberry, as it would be no less than to repeat the one given by us last year, but will state in conclusion, that we regard the introduction of this strawberry among us as a triumph, and that we feel highly gratified to know that we now have a variety of this fruit in our country, upon which we can confidently rely—for an early, lasting, and abundant crop of delicious strawberries every season.

A. WEBBER, M. D.,	HOPKINSVILLE, KY.	ELDER J. M. BENNETT,	PEMBROKE, KY.
W. H. SASSEEN,	"	S. J. LEAVELL, M. D.,	TRENTON, KY.
S. C. MERCER,	"	ELDER P. L HENDERSON,	DECATUR, ALA.
JAMES S. PHELPS,	"	E. S. STUART, M. D.,	FAIRVIEW, KY.
BEN. H. BRISTOW,	"	R. VAUGHAN,	"
A. C. GOODALL,	"	H. W. DARNALL, M. D.	"
R. W. GAINS, M. D.,	"	E. T. CABANIS,	ELKTON, KY.
T. G. HENRY, M. D.,	"	J. G ROACH,	"
THOS. GREEN,	"	H. G. PETREE,	"
THOS. S. BRYAN,	"		

State of Kentucky, Todd County.

I, BEN. T. PERKINS, Clerk of the Circuit and County Court for the State aforesaid, do certify that the foregoing is a true copy of the original report of the aforesaid committee.

And I do further certify that I am personally acquainted with said committee, and I unhesitatingly recommend them as gentlemen of high standing in the community in which they live, noted for their legal and scientific attainments, and as such most implicit confidence can be placed in their statements.

[*Seal.*] In testimony whereof I have hereto set my name and affixed the seal of the Todd County Court, this, the 2d day of June, 1859. BEN. T. PERKINS, C. T. C. C.

[From the Homestead, Hartford, Conn.]

MASSACHUSETTS HORTICULTURAL SOCIETY.

In the April number of the *Horticulturist* appeared a letter from Dr. Russell, of this city, commenting severely upon the course taken by the Massachusetts Horticultural Society, and especially by the Hoveys in their *Magazine of Horticulture*, in reference to the Pinneo, called by them Boston pear.

(The following we are assured was the action of the Massachusetts Horticultural Society in the premises.)

Saturday, May 7th, 1859.—A regular meeting of the Society was holden at the Society's rooms, at 11 o'clock A. M. The records of the last meeting were read and accepted. After the regular business of the day was finished, Geo. W. Pratt, Esq., one of the oldest members of the Society, asked leave to read portions of an article which appeared in the April number of *The Horticulturist*, and which reflected on the character of the Massachusetts Horticultural Society. Permission being given, the article referred to was read, and without discussing the question it was

Voted, That the whole subject be referred to a committee of five, with full powers to investigate the matter, and to report in full the circumstances of the case, and also what course it is advisable for the Society to pursue.

Messrs. Samuel Walker, Geo. W. Pratt, Marshall P. Wilder, B. N. French, and J. S. Cabot, were appointed this committee. Also,

Voted, That the same committee take into consideration the expediency of establishing a monthly journal, to be the organ of the Society.

After some discussion on various matters of interest, the meeting adjourned till the first Saturday in June.

I take the liberty of sending the above transcript of proceedings, as it is of general interest, and the report of the committee will be looked for with impatience, as it will show whether a society of the rank of the Massachusetts Horticultural Society will allow itself to be grosly deceived and involved in the unprincipled speculations of any nurseryman or horticulturist.

A Member of Mass. Hort. Soc.

Mr. Hovey, it will be seen, is obliged to mingle "humble pie" with his "Boston" pear—in short, is pinned by the Pinneo. We are sorry for him;—though a marvellously clever nurseryman, albeit not brought up to the business, nobody cares a farthing now for what Mr. H. calls his opinion. Like the woman of Samaria, he has had many of them, and that in such quick succession that no one can tell if the one he now professes to have is really his or not.

The subject thus brought up by the Society is one in which the public has a deep interest. It is worth while to inquire whether issuing magazines of horticulture from commercial gardens is quite the thing, or well for persons out of the trade. The example before us teaches the amateur that there is danger, at least, of interested error; the lovers of pure, unsophisticated horticultural pleasures will welcome the proposition of the members of the Massachusetts Society to edit themselves a journal of their own, and we hope to see it very soon. We may be sure ranters and brawlers will be excluded from its pages.

BUFFALO HORTICULTURAL SOCIETY.

Several meetings having recently been held with a view of reëstablishing this Society, (its operations having been of late suspended): it was finally reörganized on May 20th, by the election of the following officers:

President—Horace Williams. *Vice-Presidents*—E. G. Spaulding, Joseph Dart. *Treasurer*—Geo. F. Foote. *Recording Secretary*—Jno. B. Eaton. *Corresponding Secretary*—Thos. Stephenson. *Managers*—Dennis Bowen, James W. Brown, A. P. Thompson, Warren Granger, Richard Bullymore, Benjamin Hodge, Frederick P. Stevens, Wm. A. Coats, D. S. Manley.

Cincinnati Horticultural Society.—The spring exhibition of this Society was a success. The Report was received too late for insertion. Of strawberries, as usual, there was a great show, and premiums awarded. We have a neat volume entitled "A brief History of the Cincinnati Horticultural Society, its Charter," &c., &c., which is valuable, and will be hereafter much referred to by the descendants, &c., of the present useful and active members.

The Pittsburg Horticultural Society held a highly interesting meeting on the 7th, 8th, and 9th of June, of which we have good accounts too late for insertion.

NABOURS.

for

THE HORTICULTURIST.

Published by C. M. SAXTON, New York.